



Porcelain in Dentistry.*

Porcelain Inlays, Fillings and Restorations.

By GEORGE W. SCHWARTZ, M.D., D.D.S., Chicago, Ill.**

Limited Usefulness of Porcelain Inlays.

I consider porcelain inlays, fillings and restorations the least important part of porcelain work. They have their use in dentistry, but not as much as is generally supposed. Many times an attempt is made to restore with porcelain, when a crown would be more advisable in every sense. Often porcelain fillings are undertaken in molars, where well-made metal fillings would be more thorough and better dentistry.

Before describing the methods employed in making inlays, fillings and restorations, it will be well to consider the artistic results to be obtained in their use.

One most frequent use made of porcelain restoration is of a lost portion from one of the anterior upper teeth. We will suppose it to be a portion of a central incisor, involving one-third of the tooth mesially from the occlusal to the gingiva. What opportunity would we have artistically compared with a crown? All the cases I have ever done or seen of this class, are not to be compared in any way for looks; in strength they are decidedly inferior. If the pulp be lost in such a tooth I insist on crowning it. In many instances, I advise devitalizing to crown and only resort to porcelain restorations in cases where the patient will consent to nothing else.

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**In this issue of the ITEMS OF INTEREST, I begin a series of articles on porcelain work. In advance I wish to thank those to whom I am indebted for the help they have been to me. Some of it is original work; much of it is not. It is not my intention to take any special credit for work done by others, my purpose is to put in form that it may be referred to and easily comprehended.—G. W. SCHWARTZ.

It will be well to remember that the field for porcelain inlays, fillings and restorations is a very limited one compared to the sphere for porcelain crowns, small porcelain bridges, clasp plates, etc. At the present time the attention of the profession is turned to the use of inlays and fillings almost to the extent of a fad. It will be well to mingle conservatism with progressiveness.

This class of work is not new. Porcelain bodies have been much improved in texture and colors recently, but the methods of making the matrix in which to fuse the inlay or filling have not changed materially in the last ten or twelve years.

The class of cases requiring inlays are confined in my practice to the labial and buccal surfaces of teeth having living pulps. I very seldom make a porcelain filling.

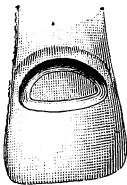


Fig. 1

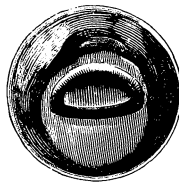


Fig. 2 a

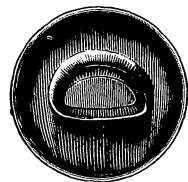


Fig. 2 b

Construction of Porcelain Inlays.

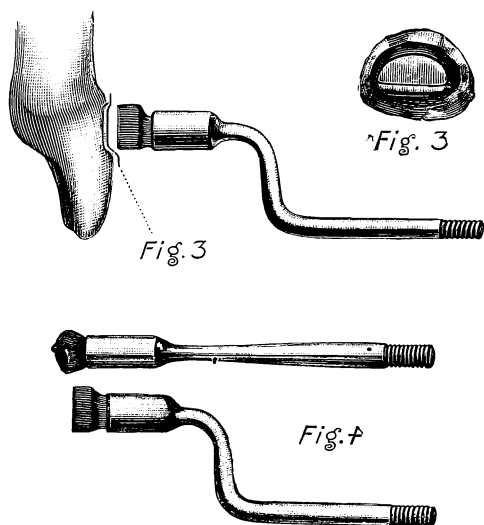
I will begin with a very simple inlay. A labial cavity in a central incisor, Fig. 1. I make my cavity as large at the margin as I wish it to be, taking care that it will be smaller at the deeper part than at the margin. I have never had any occasion to undercut an inlay cavity. I prefer them shallow with a slight bevel from margin to bottom. When I have the margin properly prepared, on removal of the decay, if I find the cavity is too deep, I fill partly with cement, using the color I think best, making the cavity about the depth shown in Fig. 1.

The instruments used to prepare the cavity are a chisel to break down enamel margins, a square end fissure bur of a suitable size to bevel the cavity to the depth I want it, and a spoon excavator to remove decay and debris.

Having the cavity prepared as in Fig. 1, we are ready to make the matrix in which to bake the inlay. To get a good matrix is the most difficult part of inlay work, requiring the greatest care and exactness. To get foil for inlay work, I take a piece of the softest platinum plate I can obtain, about an inch square of say twenty-eight or thirty gauge.

I anneal it and roll it as thin as possible. I then anneal it again. After it cools, oil it to prevent it from adhering, fold it once the long way, making two thicknesses; roll it again as thin as can be done. I anneal it again, oil it as before, fold it again the long way, making this time four thicknesses, then roll it as thin as possible, after which we have foil that is suitable for inlay work and fillings.

Take an impression of the cavity with gutta percha, modeling composition or moldine; run a small die and counter of Melotte's metal (see Fig. 2), thoroughly anneal your foil to a white heat, let it cool, then



burnish the foil over die A carefully and swage with counter die B. Anneal it again, place the matrix in the cavity in the tooth in the mouth and burnish to place with a suitable rubber burnisher, Fig. 3.

I cut from elastic rubber a form to nearly fit the cavity. I insert this form in one of the instruments shown in Fig. 4. I have four of these instruments, two straight, two bayonet shape, two sizes of each. They are made hollow, to receive the shank of the rubber form.

After we have burnished all margins of the matrix to place at the same time with the rubber burnisher, we are ready to remove it to bake the inlay, care being used not to change its shape in handling. Should it occur that the bottom be torn, it makes no material difference with the finished inlay if the margins are all perfect. You can by properly manip-

ulating the body, prevent it from running through the matrix. Working the body with as little moisture as possible, thoroughly jarring it to place, as will be described in another chapter, will keep it in proper position.

I carve the body concave from the center to margins for the first bake, on account of shrinkage and tendency to raise in center. For the second baking, first fill all crevices thoroughly with body and build flush to margins everywhere. If it has been carefully done, after the second



Fig. 5



Fig. 6

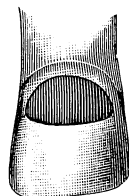


Fig. 7

baking your inlay will be finished. Before removing the matrix from the inlay, try it in the tooth in the mouth. If full enough, and otherwise correct, proceed to remove the matrix, Fig. 5, by gently pulling outward from all margins of the inlay. It will come away clean, leaving your inlay with nice margins, Fig. 6. Should a portion of the foil remain on the bottom of the inlay, carefully remove it with a sharp pointed hatchet excavator. Fig. 5 shows inlay finished with matrix in place. Fig. 6 shows inlay after matrix is removed.)

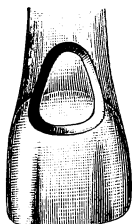


Fig. 8

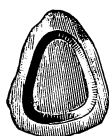


Fig. 9



Fig. 10

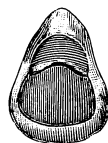


Fig. 11

The inlay being perfectly dry and clean, select the proper shade of cement for the case, dry the cavity thoroughly with alcohol, mix the cement rather thin, gently press to place. After the cement has hardened, and the excess has been removed, exactness in the different stages having been attained, the finished work should resemble Fig. 7.

Fig. 8 shows a more complicated inlay than the first one. It extends above the enamel margin about as far as it does below; the gum has receded as far as the decay extends and we wish to make a gum restoration

also. The preparation of the cavity is similar to the one described previously. Making the platinum matrix is done in a like manner. Having the matrix made as in Fig. 9, restore the lost portion of the tooth to the enamel margin with the proper shade of body, allowing only a small portion of the body to cover the floor of the matrix above the enamel margin where the gum restoration is to be made, Fig. 10. After the first baking, all crevices and shrinkage should be filled, the piece properly contoured and the case baked the second time. If the work has been properly done, the lost portion of enamel will be restored and this part of the inlay finished. The case is now ready for the gum restoration.

The color of the gum restoration may be determined by having samples of light and dark shades of gum enamel baked the same as shades of porcelain bodies. If the gum restoration is to be thick and the gums deep red, use dark gum enamel and put it on as thick as required; if the restoration is to be thin and the gums a pale pink, more white body should be used underneath and a lighter shade of gum enamel used. By keeping this in mind it will soon be easy to nearly match the gums in each case.

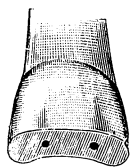


Fig. 12



Fig. 13

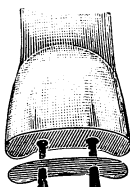


Fig. 14

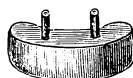


Fig. 15

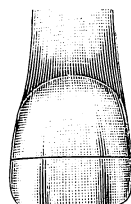


Fig. 16

One baking is usually sufficient to finish the gum restoration, which makes three bakings in all for this inlay. More than three bakings are seldom necessary to complete the work making this style inlay. When finished this piece of work should resemble Fig. 11. The removal of the matrix and cementing in the cavity are done in the same manner as described in the inlay previous to this one. Fillings are more difficult to do, owing to their various forms and inaccessibility. The same methods of making the matrix and baking the body are employed as in making inlays.

Fig. 12 shows a central incisor prepared for a porcelain restoration, about two-fifths of the occlusal edge being lost. Avoid all angles possible in making a porcelain restoration. The fewer angles we have, the greater degree of success. Complex restorations should be simplified.

All restorations must be founded on mechanical principles, and the strength for resistance to stress of mastication should be equally divided between the tooth, metal and porcelain. Having the tooth ground down as in Fig. 12, drill two parallel holes for the pins, one distally near the enamel, and one mesially near the enamel, both being in the center of the dentine labially and lingually. Irridio-platinum wire, nineteen to twenty-one standard gauge is about the size which I use. Having the tooth shortened, ground flat and the holes made for the pins, take an impression of the occlusal end of the tooth in platinum about thirty-six standard gauge. With a small burnisher find, by making depressions where the holes for the pins are located. (Fig. 13.) With a small plate punch make holes in the platinum impression for the pins, replace the platinum impression on the tooth, and push the pins through the holes. If they fit snugly, they will come away in place in the platinum impression and can be soldered without investment; if not they must be waxed in place and invested to be soldered with pure gold. Having the pins soldered to the platinum, they should be cut the proper length and flattened labially and lingually; then trim the platinum evenly to the enamel margin; we now have the metal work completed. (Fig. 14).

Select the proper shade of body to match the occlusal portion of the adjoining teeth, restore the lost portion of the tooth to the full contour and bake, being careful not to give it a high glaze at the first baking. After the first baking fill all crevices and build up the shrinkage with body to the full contour; bake again to a full glaze, which is usually sufficient, this piece of work rarely requiring more than two bakings. Having tried the case to see that it is correct and finding it to be so, proceed to remove the platinum from it. Take a small, round bur, and carefully drill around each pin to facilitate its removal. Pry it up from a point on the lingual surface, going entirely around the margins, using care not to fracture the margins, thus destroying the beauty of the case.

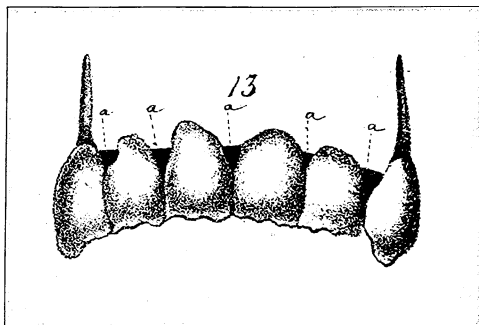
Fig. 15 shows the completed case before setting. Fig. 16, the case when cemented in place.

Bridge Work. "Ancient of Days."

By W. IRVING THAYER, M.D., D.D.S., Williamsburgh, Mass.

Dr. Wm. H. Trueman says that "Dr. Thayer either misunderstands or misconstrues the reference to page 226," of "Maury's Treatise of the Dental Art."

To please Dr. Trueman, let us vote that said Thayer both “misunderstands and misconstrues reference to page 229”—see April and May ITEMS OF INTEREST. What of it? That is not an essential point. It matters not whether Maury styles a backing to a tooth a “plate,” or whether such backings touch each other throughout their complete lateral sides, or only partially so. “His” (Maury’s) “bridge work,” as our friend Trueman puts it, may “differ widely from that now in use.” What of that? The bridging principle is clearly there. Blessed is it that improvements can be instituted in dentistry as well as in the other arts, though it may involve *“A bald aggregation of parts, old in the art; each part operating in the old and usual way, without any semblance of invention in the mechanical means, by which a NEW, or useful result is brought about; and, even if the combination were otherwise patentable, the previous state of the art shows that it was not new to this patent.”* A decision of the United States Supreme Court that applies to the Low patent.



If Maury did not describe in plain language a section of bridge work, he clearly shows us such a contrivance in his lithographed picture in Plate XVII., Fig. 13, as found in the April ITEMS OF INTEREST, page 243, which is a perfect copy of said Maury. Let us inquire.

First—Does Fig. 13 show any form, shape, figure, outline, mould, fashion, cast or model of a “plate,” as we understand to-day, *covering any of the oral soft tissues?*

Second—If it does, just where is such an exhibit?

Third—If it does not, what does it show?

This! It presents *solely and alone* a continuous basis, that in *no way touches* the soft gum tissue, acting *per se*, as a means of support for those represented six anterior teeth, plainly suggesting to an inventive dental mind *how to make a supporting dental bridge*; its feasibility and usefulness, since it shows a section of bridge work, so constructed.

The accompanying illustration is a photographic enlargement of Maury's Fig. 13, which shows most clearly at a. a. a. a. a. the *old supporting bridge stringer*.

If one can pervert or distort such an exhibit into a plausible nothingness by saying, "Modern Bridge Work Not Very Old," I could have no confidence in his pleadings, reasonings, analysis, eyesight or comprehension.

Such a piece of bridge work, as shown above, was born and constructed as long ago as 1843; yes, back to 1833 and 1828. While not as useful nor lifelike as that made in 1900, it was, nevertheless, a piece of bridge work, combining all the essential parts found in the Low patent, except the bands or ferrule that Dr. C. M. Richmond, that great, bold, inventive, versatile and able man, claims to have made and applied in June, 1880.

The supporting stringer, reacher, stretcher, which is the important part of the bridge, was *suspended* between the foundation teeth roots, or piers, and could have been made of any metal, whalebone, soft solder or many other substances if it was only *continuous*, free from the soft tissues, and able to "bridge" over lost natural tooth space, so as to support artificial teeth made of bone, ivory, marble, or, even some other persons' "human" teeth, or "incorruptible" porcelain ones, that were soldered, glued, screwed, dovetailed or held in position by any suitable means, for the purpose of filling up the space of lost natural teeth.

What matters it, if Maury did not write in so many words, "a bridge, stretcher or reacher made of something rigid enough to hold artificial teeth spaced in between other natural teeth or roots, and said stretcher not allowed to touch the gums?" Maury showed all of those principles in Fig. 13, as plain as daylight, though he may have omitted several volumes of specifications.

Whether "modern bridge work" was or was not secure, "until the introduction of the modern cements and plastics," has no bearing whatever whether bridge work was, or was not, made in 1843. At that date there were no "*lack of the essentials*," except Dr. Richmond's band improvement, which was *not new* to the Low patent. Again, such *ancient bridge pieces*, could be held in quite firmly by more than six different ways.

Thus falls to the ground, the mixed erudition of our esteemed and learned contemporary who will not see that Maury called a tooth backing "a plate," whether it was a small piece of gold back of an artificial tooth, or a substance that covered more or less of the soft tissues, yet did not write the noun "bridge work," but pictured it out for the observation of in-

ventive combinations. Such combinations, *old in the art*, have been aggregated together and called "the Low bridge patent."

Denture of a Child of Four.

BY DR. ALFRED J. SWING, Cincinnati, O.

A few months ago, a little boy, Master J. C. G., not quite four years of age, while on a visit from Chicago to this city, met with an accident by which he lost his four temporary incisors from the upper jaw.



His parents brought him to my office, much distressed at his disfigurement, in consequence of which, and because the permanent teeth could not be expected for three or four years, I suggested the possibility of making him a plate which would supply the lost organs.

The little fellow entered into the scheme with much enthusiasm, permitting the necessary impressions without remonstrance of any kind. The little denture was made and fitted admirably, and has been worn with comfort by the little patient ever since. Indeed, he eats everything with them, including candy, of which he is very fond, and he is as proud of his new teeth as he was of his first pair of pants, in evidence of which the pleasure expressed on his countenance in one of the photographs speaks louder than words.

Pyorrhea Among Railroad Men.

By R. O. WILLIAMS, D.D.S., Council Bluffs, Ia,

A short practice of nine months causes me to hesitate in expressing even a few brief thoughts to a dental journal, but some thoughts relating to pyorrhea have been on my mind for some time, and as each month goes by their seeming importance becomes more apparent.

Dr. Allen, of Billings, Montana, gave us in April his experience covering a period of twenty-one years in reference to the immunity from pyorrhea of the Indian race; and in closing asks, where, in the process of civilization, this disease manifests itself.

Practicing in a railroad center, I have an opportunity to examine the mouths of a great many railroad men. I have noticed that in the majority of cases they are affected with pyorrhea. So numerous have been the cases of late among the above class of men that when a case presents itself, I ask: "Are you a railroad man"?

I would like to hear the experience of some of the older men in the profession who have had opportunity to work among railroad men. If this be true, there must be a cause for it.

Some Suggestions Regarding Origin of Pyorrhea Alveolaris.

By Dr. H. D. BOYD, Troy, Ala.

In his article in the April number of *ITEMS OF INTEREST*, Dr. W. A. Allen states that he has "at last found a race of Indians who, in their savage state, were free from the disease." It is not by any means the writer's intention to dispute that point, for on the other hand he thinks that there is no doubt that the doctor is entirely correct. But a careful study of the subject, together with some experiments, leads the writer to believe that every tribe or race or individual which maintains a strictly savage diet, will be and is immune from this dental bogey.

In our sunny Southern land, it is the opinion of the uninitiated that the negroes are blessed with better teeth than the whites. No doubt this was at one time true, but that day, as a general proposition, has passed. In the days of slavery when the negroes fed on plenty of good corn bread, meat skins and like foods, which caused them to exercise the ligaments

which hold and surround the teeth, then pyorrhea was an unknown factor in their experience. Let every dentist who meets a person, white or black, who has beautifully pearly teeth free from tartar and (likewise pyorrhea)—I am speaking of those persons who let their teeth take care of themselves—and inquire of that person the nature of his diet. In every case my experience has been that he will name over a class of foods, in the mastication of which it is necessary to use force.

On the other hand, just call up any cook, that stays around the kitchen, tastes a great many viands and soft foods and chews none, and you find inflamed gums, broken down teeth and altogether the worst lot of mouths it is possible to find. It may strike the reader that there is nothing in this, but let him from now begin to watch and take notes. If there is nothing in it, why is it that the unusual side of a mouth is the one which is always infested with tartar?

Now the writer is one of those who believes that most cases of pyorrhea can be cured, and the way to a cure is exercise, but it is not the object of this article to touch on that. If the idea is old, will not some able exponent expatiate thereon in some following issue of this magazine.

Has Dental Legislation Cured Quackery?

By THADDEUS P. HYATT, D.D.S., Brooklyn, N. Y.

Has dental legislation cured quackery? No, never did, never will. Yet "a thing that ought to be done, can be done and should be done," applies here with special significance.

For every evil there must be a remedy and a cure, but up to the present the fallacy has been in believing that all that was needed was a few laws passed.

There are but two logical methods to be followed that will produce a radical and permanent cure, both of which should be worked for and their adoption secured.

The first is to have all reputable dental colleges embody in their rules and regulations which govern the awarding of diplomas a clause which would require the student to take a pledge to observe and uphold the dental code of ethics. Any infraction would cause a loss of the diploma and thus debar from practicing. This is no infringement of our constitutional rights, and would be of great benefit to both the profession and the public.

**Education
of the Public.**

Secondly, by systematic propaganda a greater knowledge upon dental subjects should be disseminated to the public. The subject of dental quackery should be treated fairly but fearlessly, and without malice. Just as quickly as the truth of the facts given are appreciated, and a better understanding gained of the importance of the teeth, their care and preservation, just so soon will we find the public seeking the services of professional dentists.

A far healthier relation between patients and dentists will be secured when patients better realize the limitations under which we work. The erroneous idea of the infallibility of doctors and dentists is far too prevalent, and serves rather as a handicap than a help.

The limited instructions given in our public schools is not at all sufficient, and students are not at an age to fully appreciate its importance. Those who are most willing to gain practical information upon the welfare of the teeth are parents with young and growing children, and fortunately for us it is this class that gives promise of producing greater beneficial results as a reward for our labors in this direction. During the past six years I have yet to meet the mother who has not expressed an eagerness to gain all the knowledge possible, and at the suggestion of a lecture a desire to attend.

As the more intelligent persons avoid the dental quack, and as they appreciate the painstaking work of the professional dentist, it follows that just as quickly as the less intelligent members of society become more intelligent, they also will avoid quack dentistry. This being true, then each day, month and year that the profession as a whole, as expressed in the dental societies of the land, fail to perform their duties in this respect, they also are open to just criticism.

The mere filling of teeth, and reading papers to and at each other is not fully living up to our obligations. We are called upon for more than this, and our own "code of ethics" demands that we should "educate the public mind" upon these matters. But so far nothing has been done by concerted action of societies, and the few isolated cases only go to show this great need of our times. As quackery increases, we seek to shirk our duties by passing laws for others to enforce.

It is time that those who would call themselves truly professional should realize their work and the needs of their fellow men. Dental education for the public, given by and under the auspices of the State and District Societies of the country, will do more to stop dental quackery than all legislation from now until doomsday.

Chloretone—The Ideal Local Anesthetic in Dental Surgery.

By MICHAEL LEO, D D.S., New York City.

Some time ago my attention was called to the superior advantages which chloretone possesses as a local anesthetic. I had formerly used cocaine, but lately abandoned it in favor of beta-eucaine. I think cocaine would have given satisfactory results if its toxic effect upon the heart had not so seriously inconvenienced my patients, and myself, as well. Indeed, I have been obliged to attend for hours upon persons who had been overcome by an injection of a solution of cocaine.

I am firmly convinced that a simple operation, like the extraction of a tooth, does not justify the use of any drug that will give rise to serious after effects. Moreover, in many of my cases the use of cocaine caused sloughing of the tissues, despite the usual antiseptic precautions.

After reading an article in the *Medical Record* for June 10, 1899, on the subject of local anesthetics, I experimented with beta-eucaine in a large number of cases. This drug would have proved satisfactory, so far as its local anesthetic effect is concerned, but its injection caused considerable swelling in the surrounding tissues. Patients would return and ask me the most disagreeable questions, as, for instance: "Doctor, are you sure your needle was clean?" "Have I not developed blood poisoning?" and so on. The swelling caused by beta-eucaine is painless, and seems to be harmless; but people do not like to be disfigured, even if only for three or four days, for usually the swelling subsides within that period, and the tissues again assume a normal appearance.

A pharmacist suggested to me that I make a trial of chloretone, a new local anesthetic now coming into use in the hospitals and clinics, especially in minor surgery. Upon investigation I found that while chloretone is an efficient local anesthetic, it has no toxic effect upon the heart, and it does not cause sloughing or swelling after its use. Thereupon, I procured an ounce of the crystals and made two solutions according to directions. One solution, to be used in extracting, was prepared by mixing 15 per cent of alcohol with 85 per cent of distilled water, and adding enough chloretone to make a saturated solution. I have used this solution in hundreds of cases, with perfect success, and I am prepared to say, as a result of my experience, that chloretone possesses all the good qualities of cocaine and beta-eucaine, but it does not cause any of the objectionable effects of either.

The second solution, which was made by mixing equal parts, by weight, of ether and chloretone, proved very efficient as an obtundent in preparing painful cavities for fillings, especially when sensitive dentine

was being operated upon; also in setting crowns and in bridge work, which often gives rise to considerable pain, caused by the action of the glacial phosphoric acid with which the cement is mixed. This ethereal solution of chloretone should be employed by the careful practitioner when a live pulp must be removed. This can be done immediately and painlessly, after a thorough application of the solution.

I append brief notes of a few of my cases, for the benefit of the profession, and I hope that my experience will prove valuable to my confreres.

**Cases
from Practice.**

Mrs. S. B. Right upper wisdom tooth; pus sac. Injected 25 minims. Extraction after one minute. Three attempts were necessary, as the tooth was wedged and hard to extract. The patient experienced very little pain, even though it required almost three minutes to complete the operation.

W. S., aged 11 years. Right, lower, six-year molar. Two pus sacs. Fifty seconds after injection tooth extracted. Very little pain.

Mrs. L. Left, upper, second bicuspid; pus sac; chloretone injection 20 minims; extraction after one minute. No pain at the time or afterwards.

M. L. Left, lower, twelve-year molar; two pus sacs were painlessly lanced 50 seconds after injection. Extraction with slight pain. After-pain ceased within five minutes.

O. F. Left, upper, six-year molar; two pus sacs. The pain of the alveolar abscess was intense, but ceased fifteen seconds after injection. The tooth was extracted with very little pain, as the patient affirmed.

C. D. Left, upper wisdom tooth; pulp exposed; chloretone injection and painless extraction after 50 seconds.

A. R. Left, upper, twelve-year molar; alveolar abscess was lanced. Pain ceased after injection. Fifty seconds after painless extraction. Some months later this patient said the extraction was very neatly and painlessly done.

M. McG. Anterior root of left, lower six-year molar; pus sac. Forty seconds after injection, painless extraction. No after-pain so characteristic of alveolar abscess.

Miss E. L. Left, upper lateral incisor; right, upper lateral incisor. Injected 20 minims chloretone solution. One minute afterwards painless extraction.

Mrs. D. M. I injected the ethereal solution of chloretone into the pulp of a right, upper cuspid. As the needle of the syringe advanced into the pulp chamber, I pressed warm wax around it, thus closing the cavity so that the liquid could not escape. Forty seconds later I withdrew the

instrument and wax, to permit the ether to evaporate. I also used the precaution to place the solution in a small test tube, which I held in my hand. Thus I was enabled to keep the temperature of the fluid at blood heat in order not to create pain by the injection of the cold solution.

I then removed the pulp with a broach one minute after the injection. The patient stated that the operation was painless.

Miss L. D. Right, second bicuspid. Right cuspid; 20 minims chloretone solution; painless extraction fifty seconds later.

F. P. Right, lower canine; sensitive dentine. The mere touch of an instrument seemed to be unbearable. Ethereal solution of chloretone applied until white crystals deposited. I then proceeded to excavate. After a while it was necessary to repeat the application of chloretone, when I was enabled to complete my work without complaint from the patient.

M. M. Left, lower, six-year molar; pulp exposure. Extraction, with very little pain, forty seconds after injection of chloretone solution.

M. D. Right, lower, six-year molar; exposed pulp. Chloretone injection; after forty seconds painless extraction.

F. P. Extraction left, lower, six-year molar; pus sac. Injection of 20 minims chloretone solution. In fifty seconds painless extraction. No after-pain.

M. R. Left, upper, wisdom tooth. Injection of 25 minims chloretone solution. After fifty seconds, painless extraction.

F. J. Right, lower twelve-year molar; pus sac. Injected 20 minims chloretone solution. After fifty seconds, painless extraction. I might add that the pain of the abscess ceased at once after the chloretone had been injected.

F. P. Setting of gold crown, which was of necessity inserted deep under the gum in order to reach the edge of the root—a second, lower left bicuspid. I applied the ethereal solution of chloretone on a cotton pellet, until the white crystals were visible upon the gum. The crown was then set without pain. A few days before I became acquainted with the anesthetic properties of chloretone I placed a crown in a case similar to this one; the operation was very painful, on account of the action of the glacial phosphoric acid in the cement, it being necessary to use a very thin solution



SOCIETY PAPERS

Porcelain Inlays.

BY F. T. VAN WOERT, M.D.S.

Read before the Central Dental Society of Northern New Jersey.

I presume that you will all be very much shocked before I get through with what I am going to say with regard to porcelain inlays. I believe that the method of porcelain inlay has come to stay; I believe it is a necessary adjunct to every dental office; notwithstanding which I believe it is one of the very few things that has been presented to the dental profession within the last twenty-five years that will prove a great curse if we are not very careful.

In the first place, as a business proposition, let us consider what we have that is of profit to us in porcelain inlays. If you were conducting a commercial business and were about to introduce into it any new method or system you would do so with the idea of adding to the profits of your business in a financial and business way; that is the accommodation of your patrons, the better running of the business itself with the help in your office or store, as the case may be, and unless it were shown to be an advantage you would not adopt it. From a scientific standpoint we have very little to consider. What advantage has porcelain inlay over gold fillings? Did you ever stop to think? I have thought of it a great many times, and I have yet to find more than one advantage, and a method or system which has not more than one advantage over all of those that we have been using for a great many years does not commend itself very highly in my estimation to a scientific and practical man. That one advantage is simply that of appearance. What one of you gentlemen present would think for a moment of inserting a gold or amalgam filling and leaving a line of cement at the cervical border? How many of you have read the journals and noted in them the criticisms of Dr. Wedelstaedt that there are so many imperfect fillings from the introduc-

tion of gold or amalgam in the oxy-phosphate, because of the carelessness of the operator to remove the cement? That being the case is it practical to insert a piece of porcelain with a perfect line of cement around its entire circumference? It does not seem to me so.

**Limited Usefulness
of
Porcelain Inlays.**

Again, what does this mean? Why are we forced into the position of striving to get something to supplant gold? I am very sorry to say that it is nothing more nor less than a fad. And why? Mrs. Jones rides in the car or walks down the thoroughfare today and she sees her maid or her servant with a big gold tooth and she does not like that. The only reason we are taking up the porcelain inlay is because there is a demand for it, not because it is a true, scientific method, which we should adopt.

I make porcelain inlays and I believe in porcelain inlays under certain conditions, but those conditions are rare. I want a patient under control so that I can get hold of him when I want to in order to examine the inlay. The cases where I would use them are simply those on the labial surface, where they show. Now I have covered the one advantage of a porcelain inlay over a gold filling and that is the only thing you can claim for it. I don't believe there is a gentleman in this room who would for a moment select a porcelain inlay for a molar tooth in preference to a good gold filling. Neither do I think it is a practical thing to put on a gold crown in place of a gold filling when the gold filling can be put into the tooth as well. The gold crown, bridge work, and porcelain inlays are all in the same boat; they are simply a short cut, a run. The introduction of all these methods has done more to deteriorate one of the greatest branches of our art than anything else I know of, namely, that of good gold filling. How many of you gentlemen who are in full practice do not realize this every day of your life, when patients come in from others who are growing a little old, who are getting to that point in life where they feel as if they wanted to ease up, if possible, and they are the men, as a rule, who are more anxious to adopt these new methods for the sake of saving their backs or because their eyesight is not as good as it was. Next to them come the men who are looking for the dollars alone. We are all after dollars; that is what we are in this profession for; if there was not a living in it we would not be in it and we want to get all we can. But when I speak of it from a purely financial standpoint I speak of those men who make capital from the fact that they have a specialty in any one line; they will advertise that they put on gold crowns for so much, or porcelain inlays. Porcelain inlays seem to be coming to the front now with a lot of advertisers, because it is new and the people are eager for something that is new, simply because, as P. T. Barnum said

a good while ago, there is no class of people in the universe who like to be humbugged so much as the American people.

What did we all get in copper amalgam, what did we all get in bridge work in the last few years? If you go into this thing extensively you will have a batch of trouble on your hands by and by which will be simply appalling. Further than that, when you get to that point where all this is coming back on you what have you done? You have eliminated from your own ability that skill which is all important for a successful following of the practice of dentistry, the proper manipulation of gold foil. I do not believe, after all I have heard and seen, there is a gentleman present who can show me, or could even convince himself, if he tried, that a porcelain inlay put into any other than a labial cavity, or for the sake of covering up a conspicuous tooth, is a practical thing. That is what I meant when I said I presumed some of you would be shocked, because the impression has gone abroad that I am an enthusiast on porcelain inlays. So I am; I am an enthusiast in anything that belongs to our profession and that we can make practical use of, but I tell you gentlemen I have gone very carefully into this thing. I have not put on rubber boots and waded above my knees; I have not needed them.

**Condemnation of
Selling Secret
Methods.**

Now let us get to the point where this is practical, and then as to the best application of it. For me to go into a demonstration of it would be impracticable, because it takes a great deal of time and it would not be easy to be seen by a number of gentlemen present, with this light. But I can tell you of my methods, if they are of any service to you or would help you in any way I shall be glad to have given them to you. But before starting in on them I want to say that I was very much surprised two weeks ago when I was called upon by a dentist from the western part of the country whom, fortunately, I did not see. My partner saw him and talked with him, and his proposition was to pay him \$20 for showing how porcelain inlays could be made by his method. I don't know anything about his method, but I do know this; there are gentlemen from all over the United States, I don't care who they are or where you go, who have given their time and services to the profession for years back without the inducement of any return in a financial way. I know that has been my practice and my office is open today to anyone; if I have any good methods they are welcome to them, and I know a lot of gentlemen here who do the same thing and if one man, because he has found out some little thing about a new method, will not show it unless he is paid \$20, I think it is an outrage. (Applause.) And I tell you, gentlemen, if I had talked with him he would have got it just about in that language, from me. What I have is

his, is yours and everybody's in a scientific way, and what you have, if I can not have it without paying for it, I won't take at all. I will tell you what I know about porcelain inlays in a very short time, and if it is of any value to you it won't cost you \$20.

In the first place it would be simply idiocy for me to go over the preparation of cavity and everything of that kind which you all know about. Secondly, the different methods of preparing the matrix for making the inlay are various. I have gone through the several steps. One gentleman asked me if I ever knew about phosphate cement being used to make a die or counter die, and I told him that Dr. Charles Allen showed me matrices and counter dies made that way three years ago. That I think was one of the "new things" this Western man charged \$20 for. Another was the breaking up of teeth which corresponded in color with the inlay it was desired to make. One of the first things I did when I took up porcelain inlays was to get ordinary teeth and fuse that in with the glass inlay. Is that new? You can have that without \$20.

Method of Making Inlays.	What I do in making porcelain inlays is simply this: I prepare the cavity as you all do; I take an impression with a modeling compound which is rolled out similar to a pencil only about three times its size and made as hard as possible with cold water;
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it is pointed as a pencil is in proportion to the size of the cavity of which the impression is to be taken; then the point of that is held in the flame of the spirit lamp and heated on the point, and heated as quickly as possible, so that when carried to the tooth there is enough resistance back of it in the hard material, to force that into every portion of the cavity and thereby secure an accurate impression, or as nearly accurate as it is possible to take of a cavity for a porcelain filling. It is then taken out and cooled under the faucet and a pencil of like shape is heated up on the surface in the same way and the two brought together and immediately cooled. That gives me my die and counter die. I stamp up a platinum matrix from that, which is only a crude approximation of the cavity itself. In the beginning, after trying Dr. Allen's method with oxophosphate, I tried to stamp them up and make the inlay without putting them into the cavity, and found that was not practicable, and I use these various methods for simply laying the foundation of the impression which is so hard to start in cavities, particularly when they are under the gum line. Then the platinum is placed in the cavity and properly fitted and adjusted as you would by the Jenkins or any other method; it is then taken out and the body placed in the matrix, regardless of any punctures which may be in the bottom, so long as the margins are perfect, and fuse without investment into the ground or powdered asbestos. That procedure is

almost identical, I suppose, with that of most of you; there is nothing new in that; the only thing that I remember to have thought of myself in particular, that might have been thought of by others, was that the etching or cutting off of the under surface of the inlay with hydrochloric acid.

That I did by simply inserting the face, or that portion of the inlay that was exposed, into common base wax and putting a drop or two of hydrochloric acid on and letting it stand a few moments, washing it off and boiling the whole thing in water and inserting it in the usual way.

That is the sum and substance of the making of porcelain inlays in my office. But here is the trouble; admitting that you are perfectly accurate in your substitution of porcelain for the natural tooth in color, in making the inlay, what are you going to do when you come to cement it? Are you going to maintain the color you have obtained from the baking? I have placed them in position and had them looked at by the dentists and they have said: "You can't tell it is there," but wait until the cement is put in and you can tell it every time. We will admit, for argument's sake, if you like, that you overcome that difficulty. Supposing for instance you had the Ideal cement which has been looked for for so many years; a transparent cement, and place the inlay into position and had been as successful as I have described, how long is it going to stay there? What is the effect upon it which naturally follows advancing age? Is it not that of a change of all the organs; hair gets grey, teeth get dark, and it is only a little while before the inlay is perceptible and it means only a little while before the inlay, no matter how accurate, must be changed. That is a point which is worthy of consideration if your patient has not the means to have them renewed every little while. Then there is another thing, even if they have the means, is it a practical thing to have to tear out what you have put in as a substitute to preserve those organs that God has given man? Is it not better to place in there something that will be substantial and lasting than it is to put in something that you will have to destroy, and for no other reason under the heavens but pride?

Do not misunderstand me; porcelain inlays have their place. As I said in the beginning, I believe the outfits are necessary adjuncts in our office, but this thing I do believe, and five years from tonight you will realize what I have said tonight, and that is the man who puts \$200 or \$300 into an outfit of this kind is going to have \$200 or \$300 laying around his office drawing no interest.

I do not include in that the electric furnace or whatever furnace you may select, because that belongs to the office anyhow, regardless of inlay work. We need it for a great many things, for crown work, for plate work and for all sorts of things. You come back simply to the material

necessary for that individual work, unless you get to that point where you select a high fusing body, which I claim is the only one if we are going to use it at all. The high fusing body certainly has much more strength; in the second place it is better in appearance, in the third place it works every bit as easy, and in the fourth place you can get all you want at your door, practically, with very little trouble.

**How to Make
Platinum
Pliable.**

The objection raised to a high fusing body is the difficulty on the part of some to find a matrix on which they could fuse it, the claim being made that platinum is harsh and difficult to work. Dr. Heydon, of Philadelphia, has proved that is not so; he works platinum at a thickness of 1-1000 of an inch. We make that into 1-2000 with an ordinary pair of Oliver rollers, which are made in Buffalo. Now you ask how we get at that division of thickness. It is done with a micrometer made by the Brown-Sharp people of Connecticut; they can be bought anywhere for from \$2.50 to \$10, and if the platinum you are using is properly annealed, on a clay block, as recommended by Dr. Custer, I am confident you will get a material you can manipulate with almost, if not quite as much, ease as the gold foil we have been using for the lower fusing bodies. Then you know the advantage you get of being able to use it for other purposes, that of porcelain plates, that of lengthening out a porcelain crown or in making any repairs you desire to in that particular line. If I have it I use a high fusing every time, but when I use a low fusing I use it in a platinum matrix, so that there is no advantage, only the matter of convenience. In labial cavities it might have strength enough to raise no objections, but as an all around material, in my judgment, there is nothing to take the place of the high fusing body, and there is nothing for doing the work of all of these materials, inlay work, crown work or plate work, that I know of, like the electric furnace.

That is the position I stand in tonight in regard to porcelain inlays, and I want you to distinctly understand that while I believe fully in porcelain inlays in their place, I just as thoroughly believe in porcelain inlays being kept out of places where they do not belong, and that means everywhere in the mouth where you can possibly put a good gold filling without its becoming unsightly.



Making Gold Fillings Out of the Mouth by the Impression and Matrix System.

By R. M. CHASE, M.D., D.D.S., Bethel, Vt.

Read before the Vermont State Dental Society at St. Johnsbury, March 22, 1900.

The making of gold fillings out of the mouth would at first thought perhaps seem a little strange, yet in this case, as in all others, a method has no significance unless possessing merit and capable of doing some good.

My enthusiasm in this line of work is perhaps justified by the results obtained thus far in my own practice.

I do not stand here in the presence of so many fine operators with a view of changing the good work you are doing at your chairs daily. I simply offer this as accessory.

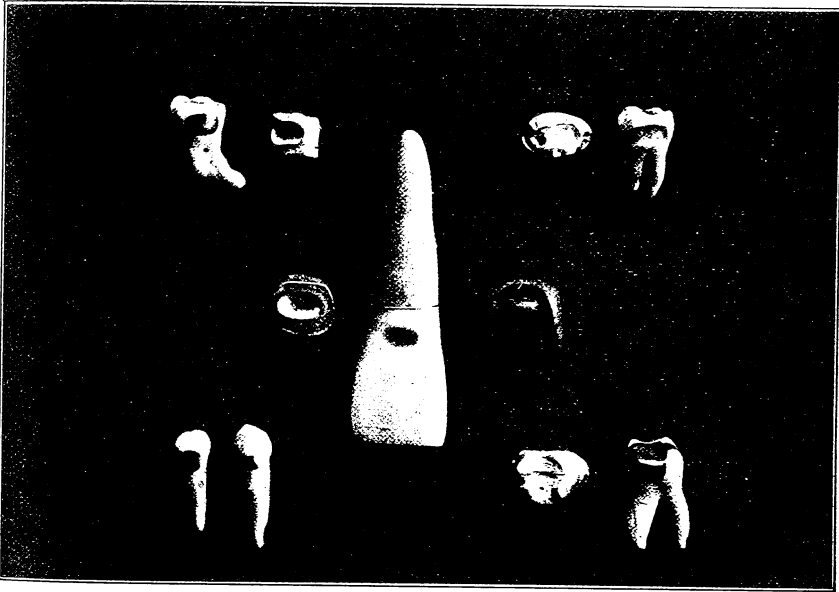
Any means whereby the burden of tooth filling can be lessened to both the patient and the operator without losing the artistic effect and permanency of the operation seems to me both justifiable and commendable.

In the special field for which this work is designed it has given pleasurable satisfaction; pleasurable because of the less tedious waste of time and vitality of both patient and operator, overcoming many annoying perplexities incident to the filling of inaccessible and large cavities. The preparation of cavities for porcelain inlays has been so well and thoroughly given in the recent numbers of the dental journals that a repetition would seem unnecessary, as the details given apply equally well to gold inlays as far as preparing the cavity is concerned, remembering, of course, that gold has a wider field and can be utilized to a greater extent, restoring fully broken and decayed molars to usefulness where porcelain would be impracticable.

When there are large undercuts, as is often the case in the crowns of molars, cut away all thin edges of enamel and excavate thoroughly. If the cavity is deep cover the floor or bottom of the cavity and all undercuts with some good non-irritating cement, varnish the same with sandarach, and in a short time the cement will be hard enough to trim, leaving the side at right angles to the floor of the cavity. This applies to the shaping of crown cavities where decay has progressed rapidly into the dentine and you wish to save as much as possible of the occluding surface. The labial cavities of the anterior teeth and the buccal cavities of the bicusps and molars will not as a rule require any preparation with cement, as the shape of these is usually larger at the orifice.

Approximal cavities of incisors and cuspids should be cut away and properly shaped from the palatal and lingual sides. Approximal cavities of the bicuspid and molars should be so formed that they will present a pyramidal shape with the base of the pyramid at the occluding surface. The object of this shaping of the cavities is to facilitate the withdrawal of the impressions.

The impression compound which I shall show you is the result of a long series of experiments in this line of work, and I present it to you with the full confidence that it fills a long felt want not only for the making



of matrices for gold and porcelain inlay work, but for reproducing the exact shape of the crowns and roots of teeth for crown and bridge work. When ready to take the impression, carefully dry and protect the cavity from moisture, and with a small piece of the compound between the thumb and index finger force the material into the cavity, using enough force to make sure that the compound occupies every part of the cavity. Gently withdraw the compound and examine to see if you have a perfect impression of the shape, angles, sides and edges of the cavity. When you can use an impression cup it is advisable to do so. If there is any tendency of the compound to adhere to any part of the cavity, a little lycopodium sprinkled upon the surface of the compound will obviate any trouble in that line. Around the impression place a small band of very thin German silver copper or platinoid. This band should be at least an

eighth of an inch larger than the cavity impression and about one-half inch high. Be careful when placing this band that you do not disturb the impression. The edge of the band should be pushed into the compound so that there will be no chance for the alloy to flow underneath. The impression is now ready and a matrix can be made with fusible alloy. To obtain a fusible alloy suitable to make a perfect matrix has been a source of quite a little trouble and expense. Most of those in the market are wholly unfit for the work. I have experimented until I am happy to say that I have succeeded in making one that possesses the essential qualities, viz.: one that melts at a low temperature and yet is hard enough to make a sharp and perfect reproduction of the impression, is non-shrinkable and does not deteriorate by remelting.

As soon as the alloy is poured into the band onto the impression, tap the impression cup gently on the table, or when the cup has not been used, the compound should be held in a napkin or tissue paper as in the act of taking the impression between the thumb and finger, the napkin will prevent burning the fingers should any melted alloy escape. The tapping can be done the same with the hand until the alloy begins to set. This will insure a sharp reproduction of the edges of the cavity and a little practice will enable you to do it easily.

After you have produced a matrix embed this in a little plaster of Paris, either on the bench or on something that will make a firm foundation, or fasten in the bench vise and proceed to fill with gold, or dismiss your patient and make the filling at your leisure; gold foil pellets, ropes or fiber gold can be used for making inlays, holding it with an instrument until you get it well anchored, or if the shape of the cavity is such that it may start one or two retaining pits can be made at the bottom of the cavity, burnish thoroughly and partly finish the filling in the matrix.

To remove the filling hold the matrix over a spirit lamp and as soon as the alloy melts a little from the edge of the inlay give the matrix a quick jerk and the filling will come out clean and a perfect inlay for the tooth cavity.

In building up a bicuspid or molar tooth, after the cavity is prepared mould a little wax into the cavity, and ask your patient to close the mouth. This will give the articulation of the opposite tooth; this placed into the matrix and arranged on an articulator will enable you to complete the occluding surface without any subsequent grinding when placed in the tooth cavity, make slight undercuts with a wheel bur at the sides, also some little depressions in the base of the inlay. Use any good cement mixed to a creamy consistency.

Before the final adjustment of the inlay try it in the cavity and see if it fits perfectly at the edges; if it does not a perfect fit can be secured

by holding the filling with an instrument and burnishing it to the edge of the cavity.

Fill the cavity with the cement and force the inlay into place, holding it firmly for a few moments and then coat the edges with sandarach varnish. After a short time it can be finished up or left for a subsequent sitting.

It may seem to you from the description of this operation that it must take a long time to make these fillings. I can only say that you will be surprised after becoming familiar with it, how quickly you can make them.

I wish to say before closing that you will find the impression and matrix system equally as good for porcelain inlays, and you will get positive results by burnishing the foil into the matrix and if from any cause you do not get a perfect inlay the first time you can duplicate it without access to your patient.

This, gentlemen, in brief, is the way I make inlays. The method is easy, practical and artistic. I hope that you will take as much pleasure in doing this work as I have in imparting the results of my labor.

Treatment of Putrescent Pulps with Non-Coagulants.

By ARTHUR L. SWIFT, D.D.S., New York.

Read before the Second District Dental Society, February, 1900.

In bringing to your consideration the non-coagulant method in the treatment of putrescent pulps at a time when so much is heard of pulp-mummification, pulp digestion, immediate root filling, etc., the writer's only excuse is that he has used this method exclusively for over twelve years, with such success as to fully convince him that this conservative method has not only been most effective, but that logically, the practical demonstration of a theory which has proven successful for so long a period, careful clinical record having been kept, must contain at least a germ of truth.

The theory that in the use of carbolic acid, creosote and all coagulants, the coagulum dams up the tubuli, and thus prevents diffused medication, and consequently complete disinfection, is not new to any of you, having been the cause of much discussion, and is disbelieved by many, as the writer learned in the discussion of a paper read by him before the Central Dental Association of Northern New Jersey in 1893, on this subject, and on other occasions when Dr. Harlan advocated this theory.

Your essayist, while in no way disclaiming the success of other methods where intelligent, conscientious, painstaking manipulation is the basic principle of procedure, is one of a small minority, who having fully proved the merits of this method, sees no reason for change so long as success continues to follow his efforts in this direction, and you will all agree, I think, that in the treatment of these, as well as in other conditions brought to our care, to a very large degree, it is not so much *what* medicaments are employed, but *how* they are employed, and success almost entirely depends upon intelligent, thorough, and skilful manipulation.

The writer is thoroughly convinced that the use of non-coagulants is an important factor in the treatment of putrescent pulps, as diffused medication is eminently essential, and I do not believe that diffusibility is attainable when coagulants of either egg albumen or serum albumen are employed. The marked diffusibility of the essential oils cannot be disputed; they are rich in oxygen, and deposit volatile camphors throughout the tubuli, which are all powerful in the destruction of septic and infectious matter. Oxygen stored up in the tubuli aids by its bleaching qualities in retaining the natural color of the tooth, and the non-irritating effects of these oils and their gentle stimulating action, make them especially valuable in these putrescent and inflamed conditions.

Essential Oils

Useful

for Treatment.

The non-coagulant essential oils most used by the writer are cajeput, eucalyptol, oil of ceylon cinnamon and eugenol. I have been using exclusively for some time the above oils, which have been carefully redistilled and the terpenes and resinous matter removed, and also the coloring matter in the eugenol and cinnamon, to a large extent. The cajeput and eucalyptol are practically colorless, so they may be used in the front teeth without the slightest fear of discoloration. The purity of these oils, as compared to those ordinarily procurable, increases their effectiveness to a very considerable extent. As the description of treatment must necessarily be dry to those who work daily in the same field, I shall be as brief as possible.

An important factor in these putrescent conditions is the use of every possible antiseptic precaution, and saliva of course must be excluded from start to finish. Having gained free access to the pulp canal, wash out with a solution of equal parts of pyrozone and bichloride of mercury, 1 to 1000. I do not attempt to remove thoroughly and deeply all the contents of the canal at the first treatment, believing that after disinfecting for a few days, instrumentation is much less liable to force septic matter through the forearm. Frequently wipe out the canal with cotton on broach saturated with the above solution, until satisfied that the canals are as clean as possible, without taking the chance of forcible pumping—for I

think we sometimes lose sight of the fact that in the use of the cotton covered broach as a piston, the force exerted is often much greater than we imagine; it is very easy to force some of this septic matter through the foramen, hence it is not advisable to use enough cotton on broach to make a tight fitting plug or piston. After thoroughly drying out canals, pump in the redistilled eucalyptol or cajeput in front teeth, and if in posterior teeth, I prefer for the first treatment oil of ceylon cinnamon or eugenol; and insert very loosely a whisp of cotton saturated with one of these oils, and seal with gutta percha or Fowler's stopping, perforating the filling; if there be any periosteal inflammation present, paint the gums with a saturate tincture of aconite and iodine and dismiss for three or four days. In the next treatment, after having wiped out the canals with bichloride and pyrozone solution, cleanse and dry thoroughly, and again pump in the cajeput or eucalyptol; insert a cotton dressing packed tightly and seal with gutta percha without perforating, painting the gums again with aconite and iodine.

At the next treatment, about ten days later, the canals will usually be in good condition for filling; after again pumping in cajeput and thoroughly drying out the canals, I fill them with oxychloride of zinc, painting the gums with aconite and iodine.

**Treatment
of
Blind Abscess.**

In treating where there is a blind abscess, drain as thoroughly as possible, syringe with bichloride and pyrozone solution, and use cotton covered broach, cleanse thoroughly, and after again draining and getting all as dry as possible, pump in eugenol or ceylon cinnamon if posterior teeth, if anterior teeth eucalyptol two parts and eugenol one part, inserting a very loosely placed cotton dressing, not closing foramen, seal with Fowler's stopping, well perforated, and paint the gums with aconite and iodine.

When seen about a week later if inflammation has not subsided, and there is still pus present, the treatment would be repeated as just described. Should there be no pus or inflammation present, treat as described when there was not the complication of a blind abscess. In case of blind abscess, which it seems impossible to reach through the tooth, and where suffering continues without abatement, I have found it advisable to open into the apical space with a small trephine and with the use of cocaine cataphorically, causing very little pain. After relieving the suffering, maintain the opening until root has been cleansed, disinfected and filled. In case of abscess with fistula, syringe through it the bichloride and pyrozone solution, and after having cleansed the canal, pump through it eugenol or ceylon cinnamon or the combination of eugenol and eucalyptol, placing in the cavity a piece of rubber such as used for vulcanite work, and

forcing it in until the oil appears at the fistulous opening; insert dressing in the canal and completely seal with gutta percha, placing tent in fistula. I think it advisable to wait twenty-four hours for the disinfection of the tubuli, when the root may be filled with oxychloride after having repeated the treatment.

**Use of
Cataphoresis.**

In conclusion, I wish to state that I have found the cataphoric current a valuable adjunct in the treatment of the following conditions: In chronic fistulous openings and those which fail to yield readily to ordinary treatment, I use a zinc rod, after the suggestion of Dr. Wm. J. Morton, mounted in the positive electrode and carried through the fistulous track, the action of the current causing electrolysis of the metal and conveying nascent chloride of zinc into the tissues with most satisfactory results. I have successfully aborted incipient abscesses and controlled persistent pericementitis by using equal parts of a fifty per cent solution of alcohol and tincture of iodine applied with the rubber cup positive electrode, on the gum, with the negative at the wrist, increasing the current gradually until from eight to fifteen volts were employed, with from one-half to one milliamperé; contact occupying from four to five minutes.

There of course follows a slight loss of gum tissue the size of the electrode, but it heals readily with little attention and occasions very slight annoyance to the patient.





Central Dental Society of Northern New Jersey—March Meeting.

Discussion of Dr. Van Woert's Paper.

I thoroughly concur with Dr. Van Woert, and
Dr. John T. Hart. from my limited experience my preference all lies towards a high fusing body, because in the use of the low fusing the color does not turn out as per the sample furnished, at all. In some instances they were underheated and in other instances I probably overheated them, and burned them out to a point where the result in shade was not that which I desired.

The remarks of caution thrown out by your essayist are in line with those of Prof. Hartine and Prof. Johns and I do not think that too much can be said in that direction. I think, however, that the change of color of the teeth in which the inlay is inserted is no more to be dreaded than do we fear the change of color in adjoining teeth, in the placement of our Logan or Richmond crown, and while we recognize that as the individual advances in years the teeth do become changed in color, I think that if the inlay work will last sufficiently long, the color at the start being good, for the change to be noticeable, we have been very lucky and the operation eminently successful.

I am reminded of the fact by Dr. Van Woert's
Dr. Sanger. presentation of this subject that in all fads we have a pendulous movement which carries us far beyond the center and the moving plumb must come to its right position before we stand in a proper attitude to the new device. His remarks are in line of the backward swing of the pendulum. They are timely, because the profession has gone mad on the subject of porcelain inlays, and when they go mad on any subject they swing beyond the center line. Words of warning are truly in order in regard to porcelain inlays, and to those of

you who are contemplating taking up this work, I do not think it would be unwise to say, go slow; be sure of your ground; profit by the experience of those radical members of the profession who have rushed in and who are bearing the brunt of the fight.

Porcelain inlays, as Dr. Van Woert has truly said, have their place in our workshops; they are going to occupy a position that nothing else has filled, and while Dr. Van Woert speaks slightly of the fact that they are only recommended because of their esthetic characteristics, still, gentlemen, we must not lose sight of the fact that the esthetic side of our profession is very important; that we have many people coming to us who not only want to preserve their natural organs of mastication, but also desire sincerely to preserve their good looks, and you and I know by personal observation that our profession is disgraced today by the unsightly display of gold seen in every public conveyance and in the mouth of almost every public speaker. Porcelain inlays are going in a measure to overcome that objection. That their application is to be universal is an absurd proposition, but, as Dr. Van Woert has truly said, they have their place. I believe that they are, in their place, a great boon to the profession and through it to our clientele; but the words of warning spoken by the essayist are heartily echoed by me. Let us observe the use of porcelain inlays, not their abuse.

While listening to Dr. Van Woert I was thinking of an afternoon spent in Dr. Joseph Head's laboratory in Philadelphia; he is such an enthusiast on this subject that I was entirely carried away. He selected not a labial cavity, but what was somewhat in the line of a difficult operation, the placing of a corner on a tooth, and it does seem to me that there are no more unsightly gold fillings than those large corners.

When Dr. Van Woert said there was but one advantage favoring porcelain inlays, it seemed to me that there certainly is a second one and that is the time and fatigue saved in the introduction of porcelain work. I believe that while the esthetic advantage is very great the saving of wear and tear upon the operator and his patient is a great advantage, and that when good results can be obtained, this method should be commended. I have had some experience in placing porcelain work and feel that it has given me and my patients a very keen sense of gratification where the work has been used judiciously, and as Dr. Van Woert says, the cases must be selected with judgment.

Dr. Turner.

One thing that Dr. Van Woert speaks of will be of great advantage, and that is the non-necessity of putting the matrix in an investment. If it can be

baked properly and without changing shape by merely laying it on the slab a great saving of time is secured.

I have never been more favorably impressed with anything I have heard from Dr. Van Woert than with his remarks this evening. There was not a single statement made by him that should not, in my humble opinion, receive the assent of every gentleman present.

Dr. Rhein.

There is nothing that can possibly interfere with the future use of porcelain in dentistry; as Dr. Van Woert says, it has come to stay. The only question is, where it should be used and in what way it has been already abused and will be abused in the future? In my opinion the use of porcelain as an inlay is only warranted where it is used distinctively and absolutely for esthetic purposes. In many cases that have come under my observation in the past few years I have seen it used from the third molar on one side to the third molar on the opposite side in almost every conceivable locality. I might say, furthermore, that there are a great many labial surfaces on the anterior teeth that do not require the use of porcelain for esthetic purposes, because the cavities are in mouths where the lips never recede sufficiently, in use, to display the filling that may be in place. It has been our endeavor to insert fillings in cavities of this nature, in porcelain, by having the patient demonstrate to us whether they exhibit such cavities or not, and if they so use their mouth as not to display the cavity I have been utterly opposed to the use of a porcelain inlay in such a cavity. The approximal surfaces of the anterior teeth, and the cutting edges, are unquestionably trying problems for us in regard to the very valuable aid that this is going to give us in that respect.

I desire to add my testimony to the remarks made by Dr. Van Woert concerning the deterioration that has been going on in our profession during the last few years concerning the one thing that has made American dentistry pre-eminent throughout the world, the ability to manipulate gold in such a way that it will remain as enduring as the tooth itself. The deterioration of that ability is unquestionably due to the reckless use of crowns and caps and bridge work during the past few years where it has been uncalled for, and here has come another invention which is going to make that deterioration more apparent and more lamentable unless a halt is called. Up to the present time nothing has been used in the practice of dentistry which has been able to save human teeth better than a properly inserted gold filling. We have all seen teeth filled over fifty years ago in that way which have withstood the ravages of time and shown themselves to be in practically the same condition as when the filling was inserted, and it is only within the last few

years that a champion in the cause of gold restoration has been wanting, and I have been infinitely pleased this evening to listen to what Dr. Van Woert has had to say on that point, because the attention of the profession should be directed to it.

I thank Dr. Van Woert for his bravery in saying what he did tonight, for I agree with him in almost every word, and you know a coward always wants a brave man to go before him! I have said many times in private what he has said tonight in public, and I am putting in porcelain fillings day after day, and I think I know their uses. There is one point on which I must disagree with him; I think the curses of the profession have not come from the old men trying to save their backbones; where the older men have taken up the new ideas it has been for the purpose of benefiting the profession and not for dollars and cents; it is the young men from the colleges and elsewhere. The ambition of the young men in college is to get a crown outfit and not to build on a corner as was done by Webb and Atkinson. When my father was a young man he accidentally broke his two central teeth half way down; these were built up on the lingual surface to the gum; nineteen years afterward there was a slight leakage at the margin which was readily refilled, and for twelve years after that and until his death he wore those natural teeth. If any porcelain fillings would stand in that position for that length of time I would like to see them. Of course the color of the tooth had grown darker, but those cutting edges remained, and bit off many a crust while many a crust has taken off the edge of my porcelain fillings.

One good point I have gotten from Dr. Van Woert was the etching off before cutting the groove. Recently I etched my filling and cut my groove too. I used in a filling the day before yesterday a little copper disc and I noticed a little dark line that would not wash out with alcohol; I suppose I could have dissolved it out but I did not. The patient was very well pleased with the color, but it did not suit me, and I told her so. Incidentally I would remark that all porcelain is porous. I have done all kinds of work in this direction and sometimes I wish I had not put them in.

While this discussion has been going on I have been looking around the room and seen a number of gentlemen of Newark and vicinity from whose hands I have seen work come, some ten, some fifteen, some twenty-five and even thirty-year old gold fillings. You have heard me say many times that I have never seen an amalgam filling that amounted to very much, and I

have come to the conclusion, born of twenty-five years' experience, that if you want to save the natural teeth and do justice to your patient, use gold wherever you possibly can.

As to the aesthetic feature of porcelain filling, there is a question in my mind whether the opaqueness of porcelain is not more noticeable, in a majority of teeth, than a gold filling.

Dr. Johnson in an article in the last issue of the *International Journal*, writing on the choice of filling material, calls attention to a practice which I have followed for some twenty odd years of shading fillings by the use of platinum and gold combined; you can do it very nicely, and shade them off so that they are really not very noticeable, but, gentlemen, I do not believe you will ever put in any human mouth that which is so pleasant to the eye, which is so durable for the work it is called upon to do, and which will be so satisfactory as the years go by to both patient and operator, as a well condensed, well finished, well contoured—whether it be a corner or an approximal or a labial surface—first-class A No. 1, gold filling with good soft foil. (Applause.)

I can only reiterate what others have said as to
Dr. Leroy. the value of Dr. Van Woert's remarks. My work started with the grinding of porcelain pieces as inlays for teeth and setting them in place. The experience I have had with the cement wearing from about the margins of these fillings has been not very bad; there have been grooves left which have been readily filled up again and subsequently filled up with gold so that the permanence of those fillings has been insured. The time has not yet arrived when we can speak of the probable results of porcelain filling. I should judge though in the majority of cases the phosphate material we might use would not deteriorate as it would with an all-phosphate filling, that the base of the cavity would be protected to a great extent and simply an air line about the balance would show that there was an artificial appliance in the tooth.

I do not think I can add anything to what Dr.
Dr. Chas. A. Meeker. Van Woert and the others have said. I believe thoroughly in the statements of the essayist and I have used porcelain right along. I believe the man who can make porcelain fillings is a true mechanic, and I believe that it will do more towards discontinuing dental parlors than anything else by educating the people up to the aesthetic beauty that porcelain work shows in the personal appearance of women, and they are the ones we get our income from more than we do from the men.

There is one point I think that has not been touched on and that is the lazy part of it. The S. S. White & Company manufacture inlays

in all colors. What I get is about 3-16ths of an inch in diameter round and some 2-16ths long. We often find lower molars which have a regular well hole on the grinding surface while the interstices of the teeth are not involved; you take an eye view of that cavity and then take one of these little inlays, the color of the tooth and keep it in your tweezers and keep trying it until it goes in and no more, and then mix up your phosphate; Ames's oxy-phosphate, of Chicago, I believe, is one of the best phosphates that has ever been in the market; I have had some in red ink and some in sulphuric acid for two months and I can not see any penetration. You will find you can do that in a very short time; you put your little inlay in and it makes a beautiful looking tooth; the inlays cost about 6 cents apiece and it is hard to get them; I received a hundred the other day that I have been waiting about a month for, from White, and I believe White is the only one who makes them.

(In closing): Mr. President and Gentlemen: The

Dr. Van Woert. time has gone too far for me to go into this matter as I should like to, and I simply want to pass over one or two matters, and I will begin with the last first.

Dr. Meeker practically admits what I said, that he is getting to that point in life where he wants to get something easy to do! (Laughter.) He also said that a man who can put in a good inlay shows his ability as a mechanic. I would like to have Dr. Meeker or any other gentleman examine any inlay ever made by the best man in the world with a magnifying glass (you do not need a microscope) and see if it is anywhere near mechanically perfect. It is a physical impossibility by the means employed in making a porcelain inlay to construct one that is anywhere near mechanically perfect. It does not take a mechanic to make a porcelain inlay at all; the laboratory boy can do it almost as well as we can. The stamping up of the matrix is the essential point.

I am sorry to say that Dr. Andrews has misinterpreted my statement concerning the old men. I did not say those evils came from the old men or from the young men, but from those men who were anxious to cut down on their day's labor or only to get dollars and cents out of it, and I reiterate that now.

Dr. Andrews. I am willing to accept the amendment. (Laughter.)

I said they were willing to employ it because
Dr. Van Woert. they were getting to that time of life when they wanted to cut down their day's labor. They are not the men who are spoiling the standard of our profession by its application; it is the young men who are doing that, but the old men simply do it as an easy way out, a short cut across. We don't get these back-sliding traits from the men he spoke of, and I don't want to be understood

as making any such statement as that because if I did I did not intend it. I thank you very much and am sorry that I have not time to go deeper into the matter.

Second District Dental Society.

February Meeting.

A regular meeting of the Second District Dental Society of the State of New York was held on Monday evening, February 12, 1900, at the residence of Dr. Theo. Siqueland, No. 260 President Street, Brooklyn. The president, Dr. Kraemer, occupied the chair.

The secretary read the minutes of the last meeting, which were approved.

Incidents of Office Practice.

Dr. Ferris:
Tooth Erupting
in the Nostril.

Dr. Hoople, the nose specialist, who read a paper before us this winter, sent a patient to me about a couple of weeks ago, and while the patient was on the way over, Dr. Hoople telephoned me that he wanted me to examine the right nostril. On doing so with the speculum, I found about half way back on the palatal process of the superior maxilla, and about opposite the middle turbinated bone, a white prominence. As soon as I touched it with the instrument, I recognized enamel. I cocained the nose, and with a little composition material took an impression of the body, and this model is the result. That gave me the position of the tooth. That evening, I went to Dr. Hoople's house; he had been endeavoring to remove the obstruction by pulling upon it, but seeing the direction of the tooth, it showed clearly that it could not be pulled, but had to be pushed out, having a posterior tilt toward the middle turbinated bone. I took the straight elevating forceps and with a lead mallet I gave it three good raps, and the tooth disappeared. At first, I did not know whether I had taken the crown off, but the patient coughed and immediately spat it out. I do not know whether there is any case of that

kind on record. If there is, I have not seen it. I have read of such teeth lying horizontally, but never of one erupting in the nares in an upright position. For six months Dr. Hoople had noted this growth, but did not recognize it. He thought he had an exostosis and wanted to cut it off, but when he tried to drill, he found the bone drill would not cut.

Dr. Jarvie : A number of years ago, I was invited by Dr. Chapman to see the case of one of his patients, where
Sensitiveness there was a tooth growing in the nostril. The crown
from Reflexes. was quite noticeable. It was a cuspid, I think, and the cutting edge of the tooth was quite visible. He anæ-

sthetized the patient, and with a forceps raised it into the nostril and then extracted it. That was about twenty years ago. I learned of a case on Saturday afternoon, which is interesting. I was with a prominent gentleman of this city, and he told me he had an experience which would probably interest me as a dentist. For years his front upper teeth had been exceedingly sensitive to changes of temperature—at times so much so that he really suffered. If he were at all overworked, or his system run down, then it would be much more acute than under ordinary circumstances. This had been going on for years. He had sought the advice of a number of dentists, and as he expressed it, they had applied all sorts of remedies, but he got no relief from any of them. Last spring he had a disturbance in the nostril, and had one of the turbinated bones removed; it was operated upon three times. After the first operation he found his teeth were not nearly so sensitive; after the second operation, which was performed some little time after that, they were still less sensitive, and after the third operation, which effected a cure, the sensitiveness disappeared, and he has felt nothing since. I thought it was a case of abrasion or erosion, but they were much more sensitive at some times than at others. They were not sensitive to acids—simply to changes of atmosphere. I asked him who his dentist was, and I find he is a member of this society, but one whom we rarely see here, and I asked him if he would object if I talked to him on the subject. It is a most interesting case, and may throw some light on a class of obscure cases that we meet occasionally, and that give us a great deal of annoyance. Persons occasionally complain of neuralgic pains which seem to emanate from the teeth; they do not know just what teeth, and the teeth are perhaps absolutely sound, as all this gentleman's teeth were. We feel if the pulp were killed perhaps the neuralgic pain would cease; then the difficulty is to determine which is the offending tooth. It may be that there was pressure upon the nerve, and the nerve of the trunk line became hypersensitive, and that condition was reflected in the nerves of the teeth. I have not studied up the case beyond that, but I in-

tend to do so. The operation was simply removing a tumor from the right side of the nostril. To do that, a portion of the turbinated bone was cut away. Three operations were necessary to remove the tumor.

In connection with the case I mentioned, the patient complained of her teeth, saying they felt as if they were asleep. She said all her superior incisors seemed to have a peculiar tingling sensation, so it was a very similar case, I should judge. I think the nose specialists are coming to consider that the teeth have something to do with their work.

Dr. Ferris.

Dr. Keppy :

A Case of

Irregularity.

I have a case of irregularity, on which I would like the opinion of the gentlemen present. The patient is a child about nine years old. The lower jaw is the normal width, but the upper jaw is so narrow, I can scarcely get my thumb between the sixth-year molars. Because of that irregularity, the two sixth year molars strike inside of the lower sixth year molars, and it is impossible for the jaw to widen on account of the articulation. Would it be advisable to endeavor to spread the arch at that age?

Dr. Ottolengui.

I should say the sooner the better. I have done it when only the four incisors were in the mouth.

Dr. Keppy.

The lower incisors are in place. The upper central incisors are in their proper place, but the laterals are piled on top of the centrals, and it will be a terrible deformity, if allowed to continue as it is. The lower arch is perfectly normal. If the upper arch were as wide as the lower, there would be no difficulty for the teeth to erupt in the proper places. If there were any reason why interference should not be made at that age, I should like to know.

Dr. Ottolengui.

That is just the kind of a case where interference should be made early, for this reason: If I understand it, this is not a case where widening the arch in the usual sense is desirable. You have the four incisors crowded together; you have the teeth in an erect position, but the jaw is too narrow. You can put on a great deal of force at that age, and move the two upper maxillary bones out bodily. You can put the pressure on every tooth in the mouth and move the two bones apart, opening the suture. You hold it so, and those interstices fill up, and you have widened the jaw at the center line, moving the two bones bodily; then you have a space at the median line, which enables you to collect the central incisors and bring the laterals into place.

Dr. Jarvie. Do the temporary upper molars strike normally with the lower ones?

Dr. Keppy. Yes.

Dr. Jarvie. Then I think it would not be well to do as Dr. Ottolengui said.

Dr. Keppy. The temporary teeth are all right, but the sixth year molars articulate with the inner cusp instead of the outer part.

Dr. Ottolengui. I would not consider the temporary teeth at all. I will substantiate that position by referring to something that occurred at the National Dental Association. Long ago, when Dr. Brophy first introduced his operation of closing the jaw for cleft palate, it seemed perfectly rational to say that when those children grew up and developed a second set of teeth, their upper jaws would bite within the lower. Dr. Brophy showed a child with perfect occlusion. Dr. Cryer said he knew long ago that this would be so because the alveolar process will be built around the roots of the second set, and the second set will seek an occlusion if they can possibly find it. If you have widened the jaw, the process will come down with it.

Dr. Barker:
Mysterious
Abscesses. Last summer, I contributed a short paper to the symposium which Dr. Ottolengui published. It contained a description of three or four cases of mysterious abscesses, which had come under my observation. I wrote it then because I sought some information as to their origin, but I have not received any hints from any quarter on the subject. I have another case now, which I should like to describe, and if possible, get some information. The patient is a young lady, a Jewess, sixteen years of age. Her teeth are remarkably good, well spaced, very few cavities of decay, perhaps not more than three or four in the whole denture. The abscess is on the right side of the jaw, directly over the roots of the first molar. There is not a cavity, filled or otherwise, on that side of the upper jaw. I mention that because it precludes the possibility of any dead teeth. I tested the first molar with ice and other cold applications; it did not respond very promptly, and I put a small drill in as a test, and found it was alive. All the other teeth on that side are absolutely perfect. The wisdom tooth is missing, but it will come yet, as she is only sixteen. There is very little or no discharge. A small silver probe passes into it about half an inch apparently, between the points of the buccal surface.

Dr. Ferris. Has the patient any tartar on her teeth?

Dr. Barker. No, it is a very clean mouth.

I had a case very similar to that within a short time, and I was so positive that the abscess was on the twelfth-year molar instead of the sixth, that in spite of the patient's protest, fearing I was causing pain by the heat of my instrument, I ran right into a live pulp and found on the buccal root of that tooth on the gingival margin a lump of tartar about as big as the head of a pin. I removed that salivary calculus.

Is not that serumal calculus? Here we have a pocket opened by a lance, and the discovery of the calculus above, and you know there is a question of there being serumal calculus in that position, without a pocket.

The paper of the evening, entitled "Treatment of Putrescent Pulp with Non-Coagulants" was then read by Dr. Arthur L. Swift, of New York.

Discussion.

The discussion was opened by a communication from Dr. Flagg, read by the secretary, as follows:

As I periodically receive the notices of the meetings of our Second District DENTAL Society of the State of New York it almost makes me feel desirous of buckling on the dental armor anew and hastening to the scene of conflict; but again, as I look back upon the battlefields where my regiment has been so often on the "firing line," and think of the comparatively little of *positivity* that *seems* to have been gained, it becomes with me a question as to whether it has been "worth while."

I have used the word "*seems*" advisedly, for, as I view it, this *seeming* ought not to be so. There are so many things pertaining to the practice of dentistry that are capable of having their *positive* value, their *positive* possibilities, their *positive* methods, their *positive* worth or worthlessness under certain positive conditions, so *definitely demonstrated* that it is strange they are not by this time *accepted* as basals, but when we remember the absolute impossibility of any unity on such points as whether dentistry is a profession or a specialty, and indeed as to whether dentistry is dentistry or stomatology, how can we expect unity upon any of the infinite number of points that go, in the aggregate, to make "practice."

So it is that in the February of 1900 we discuss the "Treatment of Putrescent Pulp with Non-Coagulants." How is it that the treatment of Putrescent Pulp is anything but one thing?—that it is anything except the removal of the putrescent material; and that there is any practical difference as to how, or with what this is done? Is it a *question* as to its

being done in such wise as to render liable—or *possible*—the forcing of putrescent material through apical foramina, or to adopt such means as would render this not liable or practically impossible?

Is it a *question* as to whether an arsenical application (if such is utilized) should be made in such wise as to positively preclude leakage of the medicament? And yet means are utilized which are *positively* known to be *liable* to permit leakage, because gentlemen *think* they will so use them as to prevent this occurrence.

Is it a *question* as to whether the rubber dam should be applied for the making of such an application? Why should *that* be a question? Why is it not *accepted* that such *preparation* for the making of such application should *always* be made as would render the use of the rubber entirely unnecessary? And, moreover, why is it not *accepted* that by such preparation *only* can such application be perfectly and entirely *safe*?

It is scores of such questions as these—that rise up before my mind for answer as I think of the years—scores of years—that have been given to both discussion and *clinical experience* for their answering, and that are yet, *to so many*, unanswered.

Is it not time that *some* of these many should be definitely *settled*—settled beyond dispute—and who more competent to do this than committees from the membership of the “Second District?”

If our society could *positively settle* only *one* disputed point that would be a beginning, for, *seriously*, is there any *ONE* we are all agreed upon? With kindest regards, I am fraternally yours,

J. FOSTER FLAGG.

**Dr. John I. Hart,
New York.**

There is one thing we are all agreed upon, and that is, as to the results we desire to obtain. Personally, in the use of any of the medicaments, I prefer the essential oils to the coagulants; not that I do not feel certain that the coagulants will ultimately reach the ends of the tubules. They will coagulate and then by osmotic action reach the ends of the tubules; but inasmuch as the non-coagulants will penetrate much more rapidly, and give just as good results, I think he is correct in recommending the essential oils. For the last few years, I have used in the treatment of putrescent pulps, the preparation of Dr. Schrier—sodium and potassium. If there is very much pericemental irritation on opening the tooth, I have refrained from penetrating deeply into the canal, and have been satisfied to remove the debris from the pulp chamber and let the tooth rest for twenty-four hours; but if there has been breaking down of the pulp without damming up the contents of the root

canal, consequently permitting an escape of the gases and much pericemental irritation has not ensued, I have continued the operation then and there, converting the putrescent contents into a soapy mass, then using aristol and oil of cassia. I think, too much stress cannot be laid on the care and the isolation of the tooth, from the commencement of the treatment, and the continued isolation of that tooth during its subsequent treatment, and finally the carrying of the filling which is to be employed in that root canal permanently, as near to the apex as possible, I would like to ask the question whether any of the members present have made use of the iodoform compound. I think it is made up of oil of cloves, oxide of zinc and iodoform. I have used it for the past five years very often in filling root canals, and have carried it as near the apex as may be, forcing into the canal a tin point filed down to cone shape in the same form that the gutta percha points have been furnished to us. The tin points have the advantage over the gutta percha points in that they do not dry up and break off as readily as the gutta percha ones. Dr. Ottolengui suggested some time ago that waxed floss silk might be used extending beyond the root canal into the pulp canal, so it might be readily removed in case of trouble. I think Dr. Swift struck the keynote when he said it was the care more than the medicaments.

The essayist speaks of using in pericemental troubles iodine and alcohol cataphorically. I think I am not wrong in saying that it cannot be used that way—that it does not travel from the cathode to the anode, but reversely. The iodine travels from the anode to the cathode. In the beginning of practice with cataphoresis, I, with many others, used iodine in that way, and I got some very much deeper results with it; but I am satisfied that the reason why was not because the iodine was being carried in by the current, but because the iodine was held by the cup over the part so much longer than by the mere swabbing, that we got the result better than by the older way. I think it was Dr. Price who showed that iodine travels from the anode to the cathode.

I have the greatest confidence in the essential oils in the treatment of putrescent pulps, but still I seldom use them, because the odor is so objectionable about the office, and if you get them on the fingers, it stays there until it wears off. I was just wondering if Dr. Swift had any way of getting rid of the odor in the surroundings of the chair and around the office. I generally place more reliance upon formalin in the root canals than anything else. I find it more effective, and know of no objection to its use in any way.

I would like to answer the question as to the odor. If you only get it on your fingers, you are very fortunate. If you wash your hands with alcohol and soap and hot water, I think you will get rid of it.

Dr. Hanning. I would like to say that I indorse Dr. Swift's method in regard to the treatment of putrescent pulps. During the last ten or eleven years I have followed out that treatment, and been so well satisfied with the result that I did not try any other. The diffusibility of the essential oils, together with their antiseptic properties, makes them very desirable. I had a case a few weeks ago, which may be commonplace, but which has not come to my attention very frequently. A patient presented with the first molar abscessed, and having a fistulous opening. I was surprised to find a condition that would not account apparently for the abscess. The roots had been carefully reamed out, and filled with gutta percha. I removed the gutta percha from the canals, but was unable to make an opening through the apical foramen of any root. I dried out thoroughly with hot air, using an application of eucalyptus without making the perforation Dr. Swift speaks of. I used a three per cent solution of pyrozone and dismissed the case. The patient presented about a week after, and the fistulous opening was entirely closed; new granulation had been formed, and to all appearances the abscess was cured. I can not report further on the case now, but it appears to demonstrate clearly the great diffusibility of the essential oils.

Dr. Keppy. Dr. Swift says he uses bichloride of mercury and pyrozone first. I think that is a coagulant, is it not? Then he follows it with the treatment of the essential oils.

Dr. Swift. I think a fifty per cent solution of it will not show that it is a coagulant. That has been my experience, using a 1/1000 solution and diluting it with the three per cent pyrozone.

Dr. Ottolengui. I will mention a little method that I have not seen anywhere. The doctor spoke truly of the dressing sometimes acting as a piston. In one instance, I remember a root that I cleaned out with a great deal of care, but I could not get the dressing in without causing pain. I came to the conclusion that the piston effect is due to the fact that we have the cotton saturated with the medicament, which prevents the passage of air. I put the cotton in dry and then placed a larger pellet against it saturated with the oil and left it there to pass in by capillary attraction, and I had no trouble. I have used that method since. It is a little more bother, but it saves pain.

This is always an interesting subject. I do think that as long as there is any putrescent matter or any albumen in the canal of the tooth, it is unwise to use a coagulant. I never use any dressing at all in a tooth where there is any putrescent matter, and my first endeavor is to remove every particle of putrescence from the pulp canal. If we can do that at one sitting, that is what we are all after, and not a number of sittings. I rely almost entirely upon the peroxide of hydrogen, three per cent solution, hot water and Darby's paper points, or sometimes, in the early stages, after opening into the canal, if there is a great deal of putrescent matter, some shreds of cotton very lightly put on a roughened broach, so the cotton will stick to the broach and not be left in the canal. My endeavor is to get every particle out before I put in a dressing, coagulant or non-coagulant. The essential oils undoubtedly have a great advantage on account of their diffusibility. They will penetrate much more quickly than any coagulant. Their effect is much more transient, but their great value consists in their diffusibility and their reaching into the pulp canal farther than any coagulant will. All the coagulants that are at all useful in pulp canals, are much more powerful as antiseptics or disinfectants than the non-coagulants, but the danger is in forming a small coagulum near the smaller part of the canal, and closing up the passage to the foramen. That to my mind is the great danger, as long as there is any putrescent matter there. Our first effort ought to be to remove every particle of putrescent matter before we use any medicament at all—the mechanical removal of it, except perhaps where you use the peroxide of hydrogen which you may say is not mechanical. After I have my canal perfectly clean and aseptic, I think some of the coagulants are much more powerful and much more permanent in their effect upon that space, and therefore for my last dressing, which I purpose to use in there permanently, I use carbolic acid, full strength. As there is supposed to be no putrescent matter in the canal, we have very little, if any, coagulum, but we have the much more powerful effect of the carbolic acid. To remove the putrescent matter, I consider the essential oils much more desirable, and I would never use a coagulant where I had putrescent matter in a root canal. I think what Dr. Hart said in regard to the coagulant was proved very positively by Dr. Kirk in the experiments he showed before this society three or four years ago, when he brought the roots of different teeth, where the matter had passed through the coagulum out through the sides of the roots, demonstrating very completely that the coagulum did not prevent the diffusion of an antiseptic in the tubuli of the tooth.

This is always an interesting subject, and I think Dr. Hart was right when he said the same result might be obtained by different means, the

one great thing being thoroughness; but while a good result may be obtained by different means, there may be an advantage in one method over another, in that it may give the desired result much sooner, although the result may be the same.

Dr. Ottolengui. You spoke of the possibility of a disinfectant passing through a coagulum. Is that true of any coagulant, or only of some of them?

Dr. Jarvie. My recollection is that Dr. Kirk showed that different coagulants passed through by osmotic action. He contended that the coagulation was a help to osmotic action; that it was the medium which carried the disinfectant through. The experiments were very interesting indeed and very conclusive.

Dr. Swift. When I was present at the last meeting of your society, in talking of this subject, several gentlemen told me they had used iodine with the electric current, without stating whether they used the positive or the negative pole for their medicament, and they had had bad results. They had badly sloughing gums, and in several instances they had to remove the teeth. Whether that was because they drove the iodine too deeply into the tissues, I do not know. I am willing to stand on the old conservative method, as long as I am successful. Replying to Dr. Ottolengui, in reference to the iodine passing from the negative to the positive, I would say without fear of being placed on the old fogey style, because I did not know any better, that I had such success with it that I continue still to use it, although I have been taught differently. Whether it is by the force of the rubber cup holding it down closely to the gum, I do not know, but when you take it up you see the mark of the cup exactly, showing you made a very good adaptation.

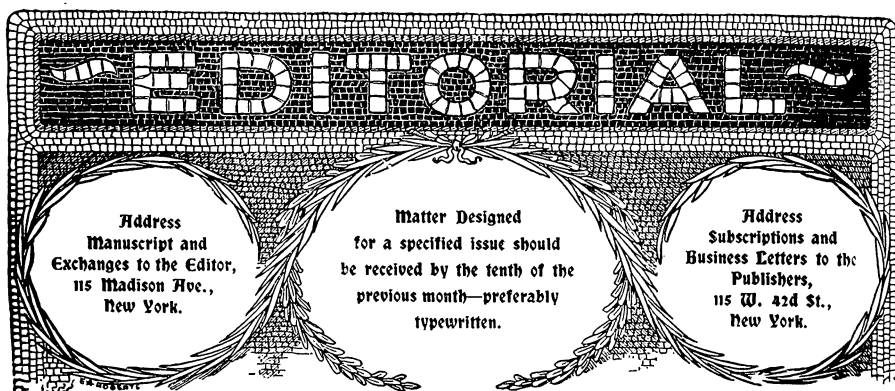
In reference to the use of the piston, I tried to make that point clear. The quantity of medicament I place on the cotton, and the size of the broach, is always adapted to the size of the canal. I do not think if you use a very small quantity of cotton, just a wisp, enough to carry your medicament, that you would have any trouble with the piston, although the Doctor's method of putting in a wisp of cotton and then carrying in the drug by capillary attraction is very good. Dr. Turner spoke about the odor of the essential oils; that is a slight objection in the oil of cinnamon and the eugenol. I have a cabinet in which the medicines are kept, tightly closed. Of course, the odor comes through slightly, but I have a slab on which I use any medicament. I do not object to the cajapat at all, but for the cinnamon and the eugenol I have bottles with ground glass stoppers. I take particular pains not to bring them near the

patients, so they cannot knock them over. I mix the medicaments and then carry them over to the patient. My assistant keeps that in order. Alcohol or boiling or anything else does not entirely remove the odor from the slabs, but it is not strong enough to make me desist from using it.

I think I answered Dr. Keppy's statement in reference to the bichloride solution. I think the reduction of 1/1000 per cent of the bi-chloride with the pyrozone does not coagulate the albumen.

In reference to Dr. Jarvie's remarks about removing all the putrescent matter before putting in any dressing, I would say I do remove all I can with the bichloride and pyrozone, and syringing, before using anything else; but I do not take the slightest chance of using a wisp of cotton or instrumentation near the end of the canal until I have had the antiseptic there for three or four days, feeling that if the antiseptics do penetrate that I may more safely work there without danger of forcing anything through the foramen.





Anonymous Correspondents.

We have received a letter signed "X. Y. Z." which begins, "I presume you have been the recipient of numerous anonymous letters from California in reference to the State Board scandal."

This certainly is a piece of presumption on the part of X. Y. Z. The dentists of the State of California have more character than he gives them credit for. It may surprise X. Y. Z. to learn that his is the only anonymous letter that has reached us. A great many letters have been received, but all of the writers except himself have had the courage to affix their signatures.

Lord Bulwer has somewhere said that "an anonymous writer is a coward." Certainly the term fits one who would write a letter full of scandalous gossip about men whom he names, and then omit his own name. The letter in question covers six pages and speaks against four men and two colleges, and concludes with the following words of self appreciation:

"Whenever you need inside facts on California dentists and their doings, publish your questions in the form of what does X. Y. Z. think of that."

We consider this letter in the light of an insult, and that we mention it at all is due to the fact that publicity may make it possible for some of the California men to identify the man and deal out to him his deserts—ostracism.

X. Y. Z. is not so very intelligent as he imagines himself to be, for at least he has given a clue to his identity by using the letter paper of W. J. Callingham, General Agent of the Orient Insurance Company, whose office is at 420 California street, San Francisco. Inquiry of Mr. Callingham might discover what dentist has access to his private letter paper. Moreover, we will cheerfully give a copy of this libelous letter to any one interested, that is to say, to any one of the men whom he assails.

In declaring the letter to be an insult, we mean that the presumption that we would make use of information coming from such a source is contemptible. We have no hesitation in exposing wrong doing when such exposure might in the end serve to elevate the profession by ridding it of the influence of those who commit wrong, or misuse power intrusted to them by their confreres, but we never have, and never will, proceed except upon good evidence, and after due investigation. Unsigned communications usually find their way into the waste basket, an exception being made in this instance, for the reason stated.





Questions will be answered in this department, provided the answers would be of general interest. After publication our readers are cordially invited to make further reply, criticism or comment.

**Mysterious
Abscesses
Explained.**

The Annual Meeting of the New York State Dental Society was exceedingly successful. Certainly the words may be used in connection with a meeting which brings forth two important new ideas.

Last year we published a paper from the pen of Dr. Barker, of Brooklyn, in which he reported several cases of mysterious abscesses on living teeth. At a meeting of the Second District Dental Society, this winter, in the course of the discussion (reported in this issue) he stated that the publication had not brought forth any solution, but that in the interim he had met another case. Dr. Barker should have been at the Albany meeting, where he would undoubtedly have been most interested in the beautiful exposition of this subject given by Dr. E. C. Kirk. In the course of his talk Dr. Kirk alluded to this class of abscesses as "pericemental abscess," which well distinguishes it from the ordinary alveolar abscess with which we are all so familiar, and which originates from an infection emanating from the pulp canal. The pericemental abscess, on the contrary, is attached to the side of the tooth,

rather than to the apex, and the infection is brought to the part through the circulatory or lymphatic tracts. Beautiful lantern slides were exhibited showing, first, the pericemental abscess *in situ*; second, sections of the same and of the pericementum and cementum, the latter being thickened to a marked degree; third, pure cultures of the bacteria found in the abscess; and, finally, section of an abscess of the kidney of one of the lower animals, which had resulted from an injection of the pure culture germs. By this means Dr. Kirk proved that the very germ found in connection with the pericemental abscess could pass through the nutrient tracts to finally produce an abscess at a distant point within the organism. The whole demonstration was exceedingly scientific, thorough, and satisfactory, and a careful study of the paper and illustrations when published in the *Cosmos* is recommended.

Dr. Fred. Capon, of Toronto, read a fine paper descriptive of his eminently successful methods of manipulating porcelain, whether in the form of inlays or in crown work, and in other branches of Prosthodontia. This is the Doctor's debut into the literary world of dentistry, and judging by the product it is safe to predict that

Retention
of

Porcelain Contours.

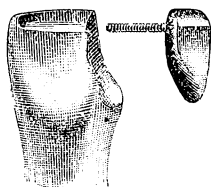


Fig. 1

our magazines would profit by contributions from his pen. It seems wonderful that in the race for papers which constantly goes on from year to year, Dr. Capon has not been discovered ere this. Have not the Canadians perspicacity enough to recognize their own good men? It was Dr. Capon who brought out the second new and useful idea. He explained his method of anchoring contours of porcelain. Supposing it to be a corner for a central incisor, the accompanying figure will make the method clear. The cavity is prepared, and the matrix made; a piece of platinum wire, preferably cut with screw thread, is passed through the matrix at a point near the incisive edge, and after the corner is baked, a groove is cut along the incisive edge of the tooth for the reception of this wire. The corner is cemented to place in the usual way, when the groove is filled with gold, which is made to surround the platinum wire, thus firmly anchor-

ing the inlay. In the same manner he anchors contours in bicuspid, the wire lying in the sulcus, and being covered with a gold filling.

At the last meeting of the National Association a number of amendments were adopted by unanimous consent. Objection was made to one providing for admission of members direct from local societies, in consequence of which objection, the amendment

went over and presumably comes up for final action at Old Point Comfort. The following preamble and resolutions were passed by the New York State Society, and expresses views which should influence the action of the national body:

"Whereas, an amendment to the constitution of the National Association to be acted upon at the next meeting provides for the admission of members recommended by local dental societies, and,

"Whereas, it is the sense of this association that, as the State societies should support and upbuild the National organization, so, reciprocally, the National body should support and upbuild the State societies, and

"Whereas, the State society being the most important dental society of each state, men seeking admission into the National Association should be required to give their adherence to their State societies whose recommendation should guarantee their fitness for the honor of membership in the National body, while men unwilling to join their State society should not be acceptable to the National Association. Therefore, be it

"Resolved, That the New York State Society recommend to the National body that it should not adopt an amendment so inimical to the best interests of State societies, and be it

"Resolved, That the delegates and members of this society be instructed to oppose this amendment at the National meeting, and

"Resolved, that these resolutions be transmitted by the Secretary to the National Association for presentation to that body."

We are sometimes asked to recommend magazines for the waiting room table. From facts which reach us from many sources we are forced to believe that the attractive cover of *ITEMS OF INTEREST* catches the eyes of waiting patients while the contents

prove readable and instructive, even to laymen. Miss Margaret Eaton forwards the appended verses with this statement: "I am one of the survival of the fittest of the dentist's chair, and having often read *ITEMS OF INTEREST* I venture to send these lines to you to use if available." Miss Eaton writes from Hartford, Conn.:

Lines to Dr. M.

With Apologies to Oliver Wendell Holmes.

Have you heard of the toothache the parson had?
You've not! Oh, he had it wonderful bad.
He'd had it a year or so and a day.
I'll tell you what happened without delay,
Driving the parson into fits,
Have you ever heard of that, I say?
Now in the science of teeth I'll tell you what,
There is always somewhere a weakest spot,
The pulp or enamel, within or without,
And that's the reason beyond a doubt
A tooth may break down and also wear out.

So the deacon inquired of the village folk
For the dentist straight and strong as oak,
Who could care for teeth that were most all broke.
He found him, and after much ado,
Insisted on seeing the instruments, too;
Steel of the finest, bright and blue,
"Might as well start on 'em now. Whew!"
"There!" said the deacon, "now I'll dew."

Do! I tell you I rather guess
He was a wonder and nothing less.
Reason vanished as vitalized air
Made the parson forget the dentist's chair.
Up he rose with the forceps charm,
Gave wildly the Indian's yell of alarm,
First a shiver and then a thrill,
Then something decidedly like a spill,
And the parson recovered from the shock,
At half-past nine by the meetin' house clock.

What do you think the parson found,
When he got up and stared around?
His poor old teeth in a heap or mound,
As though they had been to the mill and ground.
You see, of course, if you're not a dunce,
How they went to pieces all at once.
His teeth all gone, and what was worse,
He should have preached his sermon first.

**The Latest Fad
in
Dentistry.**

The dental profession seems ever alert for the adoption of something new. Within recent years we have had a number of methods of practice, loudly advocated for a time, only to be dropped after a few years, or even more quickly; porcelain fillings at present may be counted as the latest hobby. Dr. Van Woert's paper in this number is most timely. There can be no doubt that the chief advantage of porcelain over gold is that it more closely resembles the tooth, and there can be no doubt that the number of cavities properly suitable for porcelain is limited. But Dr. Van Woert draws his line too closely. He says that the labial cavity in the front of the mouth is the only excusable place for porcelain. Another gentleman thought that corners on front teeth are also desirable. But there is yet another class of cavities in which porcelain will be found most useful. It should not be forgotten that besides its superior appearance porcelain has another advantage over gold; it is less of a conductor of heat and cold. There are many sensitive cavities into which dentists dread to place gold. These are usually filled with oxyphosphate, which is to be permitted to "last as long as it will." These teeth will be better filled with porcelain. No deeper cutting will be needed, as would be the case with gold, and there need be no dread of pain after filling from transmissions of heat and cold. Moreover, the porcelain filling cemented in will be ten times as permanent as the all-cement filling. Large, shallow cavities in approximal surfaces of bicuspid, though very difficult, can be well filled with porcelain. Nevertheless, in this country at least, gold must still be, as it has been, our main reliance. Other fillings, including porcelain, must be considered as alternatives to be used in specific cases, and in these only. Let the dentist live by the gold standard, whatever his politics.

**Statistics of
Anesthetics
Wanted.**

The subjoined circular letter has been received from Dr. Morris I. Schamberg, D.D.S., M.D., of 1636 Walnut street, and is published that his queries may reach the whole of the profession, in the hope that those who can do so will answer his questions promptly, and fully. When one is willing to undertake arduous labor of this character, his confreres should at least lend the slight assistance asked.

"Dear Doctor: You can assist me materially in an investigation of the value of local anesthetics in dentistry by answering the enclosed questions and returning same to me. There is such a marked diversity of opinion as to the propriety of applying local anesthetics about the mouth, that any attempt to arrive at a statistical conclusion should meet not alone with favor, but the hearty co-operation of the profession at large. Few dental

institutions of learning advocate or teach the use of local anesthetics, and still as each graduate enters upon his professional career, he is confronted by the important question: Is one justified in using local anesthesia to alleviate the pain in dento-surgical operations?

"Some men are firm advocates of the use of local anesthetics, others strongly condemn them. If one man gets good results with the refrigerating spray or the cocaine-charged syringe and the other does not, investigation may show that they are at variance in their methods of application.

"When concerted opinion is absent in the profession, who is to decide in an individual case whether the post-operative swelling or sloughing is due to the traumatism, infection of the part or the toxic effect of the anesthetic?

"Many important points of this nature should be brought out in this investigation, and I ask that you kindly answer in full the questions mentioned. Space is provided upon the enclosed question slip for the report of any interesting cases bearing upon this subject.

"Due credit will be given for all information.

"Should you know of any other members of the profession whose experience would be of value, I would be indebted to you for their names and addresses.

"1. Do you employ local anesthesia in your practice?

"2. Kindly state what drugs or combination of drugs used for this purpose, and also your method of employing them.

"3. Have you observed any untoward effects, either constitutional or local, from their use?

"4. What means, if any, do you find necessary to prevent post-operative swelling and sloughing?"

Remarks or Reports of Interesting Cases.

Central Society President's Dinner.

On the evening of Saturday, May 14, Dr. H. S. Sutphen, president of the Central Dental Society of Northern New Jersey, entertained the officers of the Society and a few friends, at an elaborate dinner served at the Continental Hotel in Newark. The table was handsomely decorated, the viands were choice and well cooked, and the wines of the best. Places were set for twenty. The following is a programme of the toasts:

Address of Welcome, President H. S. Sutphen.

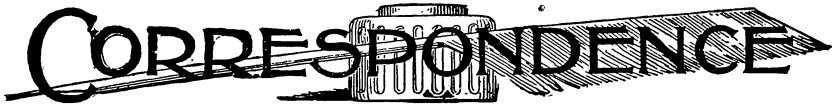
1. "The Welfare of the Profession," R. M. Sanger, D.D.S., of East Orange.

ITEMS OF INTEREST

2. "Past and Present," C. S. Stockton, D.D.S., of Newark.
3. "Our Legal Status," J. Allen Osmun, M.D.S., of Newark.
4. "Ideas," J. S. Vinson, D.D.S., of Newark.
5. "Our State Society," W. E. Truex, D.D.S., President State Society.
6. "Our Honorary Members," W. G. Chase, D.D.S., of Philadelphia.
7. "Hints," Fred. Edsall Riley, D.D.S., of Newark.
8. "Politics," Chas. A. Meeker, D.D.S., of Newark.
9. "Our Suburbs," J. W. Fisher, D.D.S., of East Orange.



CORRESPONDENCE



Diplomacy and Dentistry.

To the Editor ITEMS OF INTEREST.

Dear Sir: Under this heading there appeared an article in the April number of the *Dental Cosmos* to the effect that certain individuals with more energy than judgment have "through political influence secured an audience with the Secretary of State, and obtained his promise to instruct our Ambassador at the Court of St. James to endeavor to have removed the restrictions imposed by the Dentists' Act of England, which operates against the admission of holders of the American degree to practice in Great Britain.

The article was read at a meeting of the *Centralverein in Amerika Graduirter Doctoren der Zahnheilkunde* which took place at Berlin, Germany, at Easter, and made a profound and painful impression upon all members who had come from different parts of Germany to participate at said meeting.

The certain individuals "who succeeded in obtaining an audience with the Secretary of State, did quite the right thing, and pursued the proper course in order to achieve success for their undertaking. It would be glad tidings for the D. D. S.'s in Germany if similar steps were taken in their behalf in America.

The writer of said article in the *Dental Cosmos* does not seem to be familiar with the difficulties that D. D. S.'s of reputable American colleges have to undergo on this side of the Atlantic.

No dentist in America who is acquainted with European dental affairs will for a moment sanction the argument which the writer of the article has brought forth in such strong language. Whether or not the dental profession of England will resent any endeavor on our part to gain admission for American dentists to practice in England need not restrain us to make every effort to gain that point. Sentimentality counts for naught in affairs where vital interests are at stake.

The only way, and the right way, to uphold American dentistry in Europe is by having the Secretary of State instruct the Ambassadors in

Europe to look after the interests of American degrees, and it is to be hoped that they will do so with all the energy which is in harmony with diplomatic courtesy. •

The writer of said article says: "We would certainly resent any diplomatic interference with our educational standard by the representative of another nation." The institutions of the United States are so very liberal to foreigners (far too liberal) that it would be folly for representatives of other nations to interfere with them. If the educational standards of other nations were as liberal to Americans then it would become superfluous to take such steps as were taken by "certain individuals" with the Secretary of State.

HUBERTUS E. VOSS, D. D. S.

*Vorstand der Section Bayern, Centralverein in Amerika Graduirter
Doctoren der Zahnheilkunde.*

Munich, May, 1900.

To the Dentists of Wisconsin.

MADISON, Wis., March 24, 1900.

A most remarkable document has appeared lately in several dental journals, and has also been mailed, in pamphlet form, to the dentists of Wisconsin under cover of the business envelope of Dr. Truman W. Brophy, Dean of the Chicago College of Dental Surgery.

This document purports to be an official report of the Committee on Law of the National Association of Dental Faculties (and up to the present time has not been disowned by them). It contains a version of the manner of settlement of the mandamus suit brought by the Chicago College of Dental Surgery, in the name of one P. T. Diamond, against the Wisconsin State Board of Dental Examiners, which is so untruthful, and intentionally misleading, as to facts and conclusions, that I deem the time to have come when you are entitled at the hands of your state dental board to the *real* facts and conclusions as they exist today.

Last August, at Niagara Falls, the two national bodies, viz.: the National Association of Dental Examiners and the National Association of Dental Faculties, after a week of conference, jointly established a minimum educational prerequisite for matriculation in dental colleges, and recommended "that all litigation (on that subject) be withdrawn."

The Wisconsin board could not withdraw a suit brought against itself, and so awaited the motion of the Chicago College toward obeying the joint agreement and withdrawing its suit.

The first, last and only proposition from the plaintiff or colleges concerned ever presented to this board, or any member of it, as a basis of withdrawing their suit against this board, except such as would imply an unconditional surrender of the entire contention on our part (an action never considered for a moment by us), was the following document (Exhibit A) presented to me personally at my office in Madison on Oct. 16, 1899, by two members of the Committee on Law of the National Association of Dental Faculties, viz.: Henry W. Morgan, Dean of Vanderbilt University of Nashville, Tenn., and W. C. Barrett, Dean of University of Buffalo, who informed me they came empowered by the Chicago College, et al., to settle the suit.

EXHIBIT A.

CHICAGO, Oct. 14, 1899.

On the part of the Chicago College of Dental Surgery and Northwestern University Dental Department, we hereby accept the terms of agreement made at Niagara, between the Committees representing the National Association of Dental Faculties and the National Association of Dental Examiners in August last, to carry out all its provisions in good faith, and at once to discontinue all litigation for which we are in any manner responsible, immediately upon its acceptance, with the like stipulations on the part of the Dental Examining Board of the State of Wisconsin.

CHICAGO COLLEGE OF DENTAL SURGERY,
TRUMAN W. BROPHY,
Dean.

NORTHWESTERN UNIVERSITY DENTAL DEPARTMENT,
BY THEODORE MENGES,
Secretary.

(A true copy,
HENRY W. MORGAN,
Oct. 17, '99.)

I at once executed and gave into their hands the following agreement (Exhibit B) which they declared to me to be entirely satisfactory, and to which Dr. Morgan, a few days after, informed me by letter, he promptly received either the signature or approval of *all* the members of the Wisconsin board, making the agreement unanimous.

EXHIBIT B.

MADISON, Wis., Oct. 16, 1899.

TO HENRY W. MORGAN and W. C. BARRETT,
Of the Committee on Law, National Association of Dental Faculties.
Gentlemen: After the mandamus suit against the Wisconsin Board of

Dental Examiners shall have been withdrawn, I will cast my vote and use my influence for the immediate acceptance by said Board of the standards and rules jointly accepted and passed by the National Association of Dental Examiners and the National Association of Dental Faculties at Niagara, in August, 1899.

CHAS. C. CHITTENDEN.

I hereby subscribe to the within statement as made by Dr. C. C. Chittenden.

W. H. CARSON.

I accept and approve the within statement of Dr. C. Chittenden.

C. C. WENTWORTH.

(A true copy.

HENRY W. MORGAN,

Oct. 17, 1899.)

The following correspondence explains itself.

MADISON, Wis., Oct. 29, 1899.

MY DEAR GEN. DOE:

The enclosed letter from Dr. Henry W. Morgan of the Faculties Law Committee was just received. I also inclose correct copy of agreement signed by the Wisconsin Board on which the withdrawal of the case is predicated.

Will you kindly look to it that the integrity of the Wisconsin law as understood and administered by our board is preserved intact in any case, as regards the method and manner of such withdrawal? Let the plaintiff do the withdrawing.

Feeling sure you understand just what will be the best manner of conserving our interests I leave this matter in your hands and remain,

Yours very truly,

CHAS. C. CHITTENDEN,

President Wisconsin Board of Dental Examiners.

MILWAUKEE, Nov. 6, 1899.

C. C. CHITTENDEN, D.D.S.,

Madison, Wis.

My Dear Doctor: I enclose you copy of stipulation entered into this day by Senator Quarles and myself in the Diamond case. (Exhibit C.) The discontinuance of the suit was based upon the letter signed by yourself and other members of the State Board, addressed to Henry W. Morgan and W. C. Barrett, of the law committee of the National Association of Dental Faculties, under date of October 16, 1899, and was brought about in pursuance to your instructions in your letter to me dated October 29, 1899, in which you directed that the plaintiff should be required to

withdraw his case before anything was done on the part of the board, and charged me to see that the integrity of the Wisconsin law, as understood by the board should be preserved intact. This I attempted to, and think I did accomplish.

Very respectfully yours,
JOSEPH B. DOE.

(EXHIBIT C.)

Stipulation for discontinuance. Made Nov. 6, 1899.
Superior Court,—Milwaukee county.
State of Wisconsin, ex rel. Peter T. Diamond, *plaintiff*.

vs.

R. G. Richter, C. C. Chittenden, C. C. Wentworth, W. G. Oliver, and W. H. Carson, as state Board of Dental Examiners of the state of Wisconsin, *defendants*.

It is hereby stipulated and agreed by and between the parties to the above entitled action that said action be and the same is hereby discontinued without costs to either party.

QUARLES, SPENCE & QUARLES,
Plaintiffs' Attorneys.
JOSEPH B. DOE,
Defendants' Attorney,

The next day being November 7, 1899, the Wisconsin Board carried out its agreement with the Committee on Law of the National Association of Dental Faculties by unanimously passing the following preamble and resolutions (Exhibit D) and also on that date issued a license to P. T. Diamond on his presenting the proper affidavit, executed in Chicago by him on Nov. 7, on a blank form procured from Secretary Carson by Sen. Quarles, after suit was withdrawn.

(EXHIBIT D.)

WHEREAS, The mandamus suit brought against this board on behalf of the Chicago College of Dental Surgery, the Northwestern University Dental Department of Chicago and other schools in the name of P. T. Diamond has been withdrawn by them from the courts without costs, therefore:

Resolved, That in the judgment of this board, so far as preliminary educational requirements are concerned, only such dental colleges are reputable as require of students seeking admission, as a minimum preliminary educational requirement, a certificate of entrance into the second year of a high school, or its equivalent, the preliminary examination to be placed in the hands of the State Superintendent of Public Instruction.
And

Resolved, That hereafter this board issue a license to practice dentistry in the state of Wisconsin, without examination by this board, to any person tendering the proper fee and duly presenting to the board, or its secretary, a certificate of graduation or diploma from a regularly incorporated dental college requiring the minimum preliminary education above mentioned, provided the college issuing such certificate of graduation or diploma be, in the judgment of the board, reputable in all other respects.

From the foregoing you will readily be enabled to understand that the efforts of this board to advance educational standards have not been made in vain.

In the past, colleges in the United States that so desired could matriculate whomsoever they chose on whatever credentials they chose, and were accountable to nobody. Today there exists a national, iron-clad agreement between the colleges and examiners to the general effect that *no school shall be considered as "reputable" which does not require* as an educational prerequisite for matriculation, "a certificate of entrance into the second year of a High School, or its equivalent, the preliminary examination to be placed in the hands of the State Superintendent of Public Instruction."

This was the compromise on which our late contention was settled. It has taken a good deal of time and some courage to accomplish all this, but we feel that the result is worth it all; and from present indications the time is close at hand when educational standards, curriculum and length of course will be so advanced as to place our beloved profession in the very van of the procession.

This statement is prepared and sent, you by authority of the entire Wisconsin State Board of Dental Examiners.

CHAS. C. CHITTENDEN,

President.

The following letter, just received from our attorney, best sets forth the present state of affairs as regards the board's interpretation of the Wisconsin law in respect to their judicial powers and responsibilities in educational standards:

SPARTA, Wis., March 21, 1900.

Dr. C. C. CHITTENDEN,

Madison, Wis.

My Dear Doctor: We are at last in a way of securing a final determination by the Supreme Court of the legal questions the board wishes to have settled, in the quickest, easiest and cheapest way possible.

Last night we argued the demurrer in the Rice case and Judge Wyman, with much hesitation and uncertainty, sustained the demurrer.

I secured a stay of proceedings in order that we might appeal to the Supreme Court.

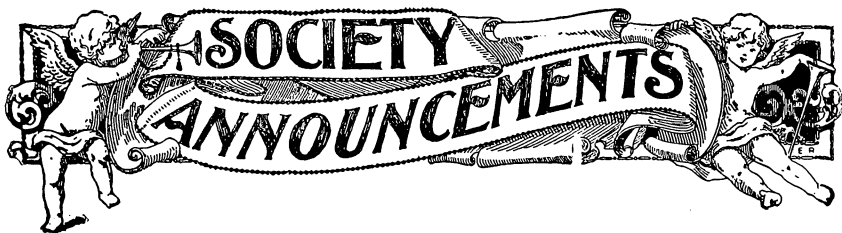
We can get a decision upon, and interpretation of our statute at the next term at Madison, which begins in August.

The only question to be decided is "Did the board, in requiring an educational preliminary as a necessary element of *reputability* exceed its powers?"

This is the question we all want settled. If the Supreme Court is against us, the law must be amended. If with us, the controversy is at an end. Very respectfully,

JOSEPH B. DOE.





National Society Meetings.

- International Dental Congress, Paris, France, August 8-14.
National Dental Association, Old Point Comfort, July 10.
American Medical Association, Atlantic City, N. J., June 5 to 8.
National Association of Dental Examiners, Old Point Comfort,
July 13.
National Association of Dental Faculties, Old Point Comfort,
July 13.
-

State Society Meetings.

- Arkansas State Dental Association, July 2.
California State Dental Association, San Francisco, June 19, 20,
21, 22.
Colorado State Dental Association, Boulder, June 12, 13, 14.
Indiana State Dental Association, Indianapolis, June 19, 20, 21.
Maine Dental Society, Brunswick, July 17, 18.
Massachusetts Dental Society, Boston, June 6, 7.
Michigan Dental Association, Kalamazoo, June 11, 12, 13.
Minnesota State Dental Association, Minneapolis, Sept. 5, 6, 7.
Missouri State Dental Association, Louisiana, July 10, 11, 12, 13.
New Jersey State Dental Society, Asbury Park, July 18, 19, 20.
Ohio State Dental Society, Columbus, Dec. 4, 5, 6.
Pennsylvania State Dental Society, Reading, July 5, 6, 7.
Rhode Island State Dental Society, Newport, July 10.
South Carolina State Dental Association, Harris Lithia Springs,
July 3.
West Virginia State Dental Society, August 30, 31.
Wisconsin State Dental Society, La Crosse, July 17, 18, 19.

Local Society Meetings.

First District Dental Society of the State of Illinois, Galesburg,
Sept. 28.

Northern Ohio Dental Association, Cleveland, June 5, 6, 7.

National Dental Association.

PRELIMINARY PROGRAMME.

SECTION II.—DENTAL EDUCATION, LITERATURE, ETC.

"Our Dental Educational System," Dr. M. F. Ault.

SECTION III.—PAPERS AND ESSAYS.

"Grinding the Natural Teeth for the Purpose of Contouring the Interproximate Space and Improving Point of Contact," Dr. Lawrence P. Leonard.

"Treatment of Root Canals" (two papers), Dr. Jules J. Sarrazin and Dr. A. E. Webster.

"Porcelain Inlays" (two papers), Dr. J. E. Wilkinson and Dr. Joseph Head.

Other papers by Dr. C. N. Johnson, Dr. E. C. Kirk, and Dr. E. K. Wedelstaedt; subjects not announced.

"Some Suggestions in the Treatment of Teeth," Dr. A. C. Brewer.

SECTION III.—CLINICS.

"Treatment of Pyorrhea Alveolaris," Dr. Howard T. Stewart.

"Use of Manu-dynamometer and Gnatho-dynamometer," Dr. G. V. Black.

"Porcelain Crown and Bridge Work," with models, Dr. H. J. Goslee.

"Implantation as a Radical Cure for Pyorrhea Alveolaris," illustrated with skiagraphs, Dr. James E. Keefe.

"Cavity Preparation," Dr. C. N. Johnson.

"Gold Inlays," Dr. W. V. B. Ames.

"Method of Combining Cement and Amalgam for Filling Teeth," Dr. L. C. Taylor.

"Dentenax Teeth for Crown and Bridge Work," Dr. R. C. Brophy.

"Jenkins Porcelain for the Production of Buccal Faces for All Gold Crowns," Dr. George Evans.

ITEMS OF INTEREST

SECTION V.—ANATOMY, PATHOLOGY AND SURGERY.

The chairman of the Section selects the subjects upon which papers are to be presented and names the essayists. He has for this year prepared the following programme:

ANATOMY.

"Source of Nutrition of the Dental Pulp," Dr. A. O. Hunt.

"The Evolution of the Bunodont from the Haplodont Forms of Teeth," Dr. A. H. Thompson.

PATHOLOGY.

"The Pathological Changes in Pyorrhea Alveolaris," Dr. M. L. Rhein.

"Oral Manifestations of Syphilitic Infection." Illustrated by the stereopticon, Dr. W. C. Barrett.

SURGERY.

"Surgical Treatment of Fractures of the Maxillæ," Dr. J. S. Marshall.

"Antiseptic Surgery of the Face and Mouth," Dr. W. H. G. Logan.

New Jersey State Dental Society.

The thirtieth annual meeting of the New Jersey State Dental Society will be held in the Auditorium, Asbury Park, N. J., 10 a. m., Wednesday, July 18, and continuing the 19th and 20th.

Five excellent papers by well known dentists have been secured, and, as usual, the features of the clinic on oral work, prosthetic dentistry, electrical furnace porcelain work, gold crowns, bridges, and allied subjects will be interesting to instruct and please all members and visitors.

The exhibits in the large hall of the Auditorium will be the largest and most comprehensive ever before attempted by the society.

The clinics will be under the personal supervision of Dr. Frank L. Hindle, of New Brunswick, and aids, and the exhibits under Dr. F. Folsall Riley, of Newark, and aids.

The headquarters will be the Hotel Columbia, with rates of \$2.50 and \$3.00 per day.

The profession generally are invited to participate.

The National Association of Dental Examiners.

The seventeenth annual session of the National Association of Dental Examiners will be held at the Hotel Hygeia, Old Point Comfort, Va., beginning at 10 a. m., Friday, July 13, 1900, and continue in session three days.

Delegates will present certificates signed and sealed by the officers of their respective boards.

The hotel rates will be \$2.50 per day.

For New York, New Jersey and Eastern State members, the Old Dominion Steamship Co., foot of Beach street, New York, will make a reduced excursion rate of \$12.00, including staterooms and meals, sailing 3 p. m., Monday, July 9, and Thursday, July 12.

CHAS. A. MEEKER, D.D.S., Secretary.

29 Fulton street, Newark, N. J.

International Dental Congress.

The following papers will be read at Paris by the undermentioned gentlemen:

A. K. Fort, D.D.S., Atlanta, Ga., "The Influence of the Saliva on Bacterial Growth in the Mouth."

W. A. Price, D.D.S., Cleveland, Ohio, "The Science of Dental Radiography." Illustrated.

Richard Grady, M.D., D.D.S., Baltimore, Md., "Instructing Our Patients in the Care of the Mouth and Teeth."

R. R. Andrews, A.M., D.D.S., Cambridge, Mass., "The Development of the Enamel."

Geo. W. Cook, D.D.S., Chicago, Ill., "A Bacteriological Study of Pyorrhea Alveolaris."

C. S. Case, M.D., D.D.S., Chicago, Ill., "Important Principles in Dento-Facial Orthopedia."

R. H. Hofneinz, D.D.S., Rochester, N. Y., "Our Preliminary Educational Deficiencies."

E. H. Angle, M.D., D.D.S., St. Louis, Mo., "The American Type of Dento-Facial Deformity."

J. E. Hinkins, D.D.S., Chicago, Ill., "The Chemical Action of Cements in the Mouth."

I. N. Broomell, D.D.S., Philadelphia, Pa., "The Source of Nutrition of the Dental Pulp."

T. W. Brophy, M.D., D.D.S., LL.D., Chicago, Ill., "Surgical Treatment of Palatal Defects."

W. C. Barrett, M.D., D.D.S., Buffalo, N. Y., "International Dental Ethics."

B. Holly Smith, M.D., D.D.S., Baltimore, Md., Will Open the Discussion on Education.

Jonathan Taft, A.M., M.D., D.D.S., Cincinnati, Ohio, "Dental History."

A. W. Harlan, A.M., M.D., D.D.S., Chicago, Ill., "Pulp Digestion."

E. R. Warner, M.D., D.D.S., Denver, Colo., "Some Phases of Mummification."

It is expected that a few additions may be made to this list.

The following gentlemen will give clinics:

CLINICS.

W. V. B. Ames, D.D.S., Chicago, Ill., "Some Possibilities of New Process Oxyphosphate of Copper."

Gordon White, D.D.S., Nashville, Tenn., "A Compound Filling, Using in the Cavity Tin, Abbey's Non-Cohesive Gold and Nickold's Cohesive Gold."

Joseph Head, M.D., D.D.S., Philadelphia, Pa., "Porcelain Inlays."

Alfred Owre, M.D., D.M.D., Minneapolis, Minn., Will Prepare a Step Cavity in an Incisor or Bicuspid, and Fill Same with DeTrey's Crystal Mat. Gold. (Solila.)

Joseph W. Wassall, M.D., D.D.S., Chicago, Ill., "The Treatment of Septic Pulpless Teeth."

Hart J. Goslee, D.D.S., Chicago, Ill., "Porcelain Crowns and Bridgework."

Robert Good, D.D.S., Chicago, Ill., "Porcelain Bridgework."

V. H. Jackson, M.D., D.D.S., New York, "Jackson's System of Constructing Appliances for the Correction of Irregularities of the Teeth."

Levitt E. Custer, D.D.S., Dayton, O., "The Electric Oven, and Electric Gold Annealer."

W. E. Griswold, D.D.S., Denver, Colo., "A Removable Crown for the Support of Saddle Plates or Bridges."

E. K. Wedelstaedt, D.D.S., St. Paul, Minn., "Gold Filling." Mesio-occlusal Cavity in Upper First Molar, demonstrating Dr. C. V. Black's method of—

First—Cavity Preparation.

Second—Extension for Prevention.

Third—Occlusal Anchorage.

Fourth—The Use of Annealed and Unannealed Gold.

Fifth—Method of Finishing (using the Black saw and finishing files).

Sixth—Proper Contact, also

Seventh—The Scientific Application of the Rubber Dam, and

Eighth—The Wedelstaedt System of Measurement, and its application to cavities in the human teeth."

Frank Holland, M.D., D.D.S., Atlanta, Ga., "Cohesive Gold Filling."

T. W. Brophy, M.D., D.D.S., LL.D., Chicago, Ill., "Surgical Treatment of Congenital Cleft Palate."

There are three or four additional clinicians to hear from.

W. E. GRISWOLD, Secretary.

A. W. HARLAN, Chairman.

American Dental Club.

The American Dental Club of Paris desires to make known to all American dentists visiting Paris for the International Dental Congress that the members of the club place at their disposal some rooms which are in a central location, 40 rue des Mathurins, where mail can be sent, and where light refreshments can be obtained.

The club extend a cordial invitation to all their American confreres to make use of these rooms as a general headquarters from August 5 to August 15.

C. V. DuBOUCHET, President,
8, Boulevard des Capucines.

GEO. A. ROUSSEL, Secretary,
74, Boulevard Haussmann, Paris.

Reception Committee Appointed by the Management of the International Dental Congress at Paris.

The following named gentlemen constitute a reception committee for looking after the welfare of residents of the United States attending the Dental Congress:

Dr. du Bouchet, President, 8 Boulevard des Capucines.

Dr. Roussel, Secretary, 74 Boulevard, Haussmann.

Drs. Barrett, Bogue, Crane, Daboll, I. B. Davenport, W. Davenport, Fay, Gores, Hotz, Lie, Levert, Meng, Georges Ryan, Jean Ryan, J. H. Spaulding and Silva.

Missouri State Dental Association.

The thirty-sixth annual meeting of the Missouri State Dental Association will convene at Louisiana, Mo., July 10, 11, 12 and 13, 1900. A cordial invitation is extended to all reputable dentists to be present and participate in the proceedings and become members of the Association.

Railroad rates of one and one-half fares have been secured on all railroads in the State upon the certificate plan.

Hotel rates at Palmer House are \$1.50 and \$2.00 per day.

PROGRAMME.

Address of Welcome, Hon. Champ Clark.

President's Address, Dr. W. L. Reed, Mexico.

Discussion opened by Dr. F. M. Fulkerson, Sedalia, and Dr. F. H. Achelpolh, St. Charles.

"Necrosis, Involving the Alveolar Process, Superior Maxillary, Nasal and Palate Bones, Resulting from Mal-Treatment of an Alveolar Abscess," Dr. W. H. DeFord, Cedar Rapids, Ia. Discussion opened by Dr. J. E. Cravens, Indianapolis, Ind., and Dr. A. M. Tutt, Liberty.

"Things I Have Noticed and Other Things," Dr. J. B. Chaffee, Carthage. Discussion opened by Dr. Wm. Carter, Sedalia, and Dr. J. B. McBride, Springfield.

"Relation of Dental Colleges to the Profession and General Public," Dr. Ira B. Crissman, Chicago, Ill. Discussion opened by Dr. D. R. Stubblefield, Nashville, Tenn., and Dr. E. N. LaVeine, Kansas City.

"The Material, Porcelain," Dr. Harry M. Hill, St. Louis. Discussion opened by Dr. C. H. Darby, St. Joseph, and Dr. D. O. M. LeCron, St. Louis.

"Finished Dentistry," Dr. H. E. Zorn, De Soto. Discussion opened by Dr. G. A. Bowman, St. Louis, and Dr. G. H. Belding, Calmar, Iowa.

"Bacteriology and Pathology, Their Relation," Dr. M. D. Hamisfar, Warrensburg. Discussion opened by Dr. W. H. DeFord, Cedar Rapids, Ia., and Dr. H. Prinz, St. Louis.

"Incidents in Practice," Dr. J. G. Harper, St. Louis. Discussion opened by Dr. T. W. Pritchett, Whitehall, Ill., and Dr. R. J. Winn, Bolivar.

"Open Faced Gold Crowns," Dr. H. H. Sullivan, Kansas City. Discussion opened by Dr. Wm. Conrad, St. Louis, and Dr. E. G. Simmons, Farmington.

"The Universal Tooth," Dr. R. C. Brophy, Chicago, Ill. Discussion opened by Dr. W. E. Tucker, Springfield, and Dr. W. F. Lawrenz, St. Louis.

Subject to be announced, Dr. C. L. Van Fossen, Kansas City. Discussion opened by Dr. Ira B. Crissman, Chicago, Ill., and Dr. W. W. Cleveland, Louisiana.

Lantern lecture, Dr. C. D. Lukens, St. Louis. Discussion opened by Dr. J. E. Hinkins, Chicago, Ill., and Dr. G. A. McMillen, Alton, Ill.

"Preparation of Cavities and Filling with Non-Cohesive and Cohesive Gold Foil." With Illustrations. Dr. D. J. McMillen, Kansas City. Discussion opened by Dr. B. L. Stevens, Hannibal, and Dr. M. R. Windhorst, St. Louis.

Subject to be announced, Dr. J. F. Fry, Moberly. Discussion opened by Dr. N. H. Gaines, Independence, and Dr. P. H. Eisloeffel, St. Louis.

"Questions on Method and Practice," Dr. D. F. Orr, Liberty. Discussion opened by Dr. E. E. Shattuck, Kansas City, and Dr. W. W. Birkhead, Louisiana.

CLINICS—SECOND DAY.

By R. R. VAUGHN, Supervisor.

"Alveolar Periostitis," Dr. J. E. Cravens, Indianapolis, Ind.

"Contour Moss Fiber Gold Filling," Dr. J. E. Hinkins, Chicago, Ill.

"Operative and Prosthetic Technics," Dr. D. R. Stubblefield, Nashville, Tenn.

"Table Clinic—Dentenax 'Slotted' Teeth," Dr. R. C. Brophy, Chicago, Ill.

"Filling with New Process Gold," Dr. M. R. Windhorst, St. Louis (demonstrating S. S. White's mechanical mallet).

"Contour Amalgam Fillings on Molars or Bicuspid," Dr. T. W. Pritchett, Whitehall, Ill.

"Table Clinic—Post Anchorage for Pulpless Teeth in Bridge Work," Dr. F. F. Fletcher, St. Louis.

"Immediate Pulp Extirpation Without Cataphoresis," Dr. J. W. Hull, Kansas City.

"Gold Filling Using Hand Mallet," Dr. G. H. Belding, Clamar, Ia.

"Swaged Metal Plate from Plaster Model," Dr. W. W. Cleveland, Louisiana.

"Gold Filling Using Bonwill Mallet," Dr. Clinton B. Helm, Rockford, Ill.

Table Clinic—"Porcelain Inlay Crown and Bridge Work," Dr. D. O. M. Le Cron, St. Louis.

"Combination Cohesive and Non-Cohesive Gold Filling," Dr. D. J. McMillen, Kansas City.

"Pyorrhea," Dr. W. W. Birkhead, Louisiana.

"Open Faced Gold Crowns," Dr. H. H. Sullivan, Kansas City.

"Contour Gold Filling," Dr. W. L. Bridgeford, Macon.

"Method of Swaging Backings for Porcelain Faced Crowns," Dr. John G. Harper, St. Louis.

"Corners and Fillings from Gold Plate for Incisors and Bicuspid," Dr. E. W. Stevens, Cameron.

"Bridge for Tilting Molars," Dr. J. L. Clark, Pleasant Hill.

THIRD DAY.

"DeTrey's Crystal Gold Filling in Labial Cavity," Dr. Ira B. Crissman, Chicago, Ill.

"Operation for Necrosis Resulting from Abscessed Antrum," Dr. W. F. A. Schultz, St. Louis.

Table Clinic—"Practical Crown Work," Dr. G. A. McMillen, Alton, Ill.

"Demonstrating Working Qualities of Eoff's Gold for Fillings," Dr. J. S. Letord, Kansas City.

"Treatment of Exposed Pulp and Filling with Cement," Dr. N. H. Gaines, Independence.

"Removable Facings for Crown and Bridge Work," Dr. C. L. Van Fossen, Kansas City.

"Application and Manipulation of Mummifying Paste," Dr. H. Prinz, St. Louis.

"Contour Gold Filling No. 4 Foil, Heavy Mallet," Dr. R. J. Winn, Bolivar.

"Swage Metal Plate Over Plaster Cast," Dr. W. W. Flora, Carthage.

"Gold Filling, Gingival Cavity, Labial Surface," Dr. J. C. Pasquet, Mexico.

"The Goslee System of Porcelain Crown and Bridge Work," Dr. W. F. Lawrenz, St. Louis.

"Non-Cohesive and Cohesive Gold Filling in Approximal Cavity," Dr. S. C. A. Rubey, Clinton.

"Orthodontia," Dr. C. D. Lukens, St. Louis.

"Method of Making Open Faced Gold Crown," Dr. E. G. Simmons, Farmington.

"A Rapid System of Bookkeeping. Modification of Card System," Dr. M. R. Windhorst, St. Louis.

"Cleavage of Enamel Preparatory to Crowning, using instruments of Clinician's own design," Dr. A. G. Johnson, Chicago, Ill.

Table Clinic—"Rapid Method of Making Perfect Fitting Open Faced Gold Crown for Bridge Work," Dr. C. H. Williams, De Soto.

"Extracting Roots with Elevator," Dr. D. J. McMillen, Kansas City.

Virginia State Board of Dental Examiners.

The annual meeting of the Virginia State Board of Dental Examiners will be held in the Capitol at Richmond, Va., beginning Tuesday, June 12, 1900.

The examination will be practical and theoretical

Candidates are requested to bring instruments, rubber dam, filling material, etc., necessary for making fillings, or doing such other work as may be required.

Chairs only will be supplied by the Board.

Those desiring to take the examination are requested to notify the secretary ten days before the examination.

H. W. CAMPBELL, Secretary.

Suffolk, Va.

Rhode Island Board of Registration in Dentistry.

A meeting of the Rhode Island Board of Registration in Dentistry for the examination of candidates, will be held in Providence, Wednesday, June 27, 1900, at 9 a. m., at Dr. Keefe's office, 315 Butler Exchange.

Each candidate must come prepared with rubber dam, gold, and instruments to demonstrate his skill in operative dentistry. Candidates are expected to provide their own patients, but by giving one week's notice the Board will supply them as far as possible.

The theoretical examination will include Anatomy, Physiology, Histology, Chemistry, Pathology, Materia Medica, Therapeutics, Operative and Prosthetic Dentistry, Crown and Bridge Work, Metallurgy, Orthodontia, Anesthesia and Surgery.

All applications, together with the fee of ten dollars, must be filed with the Secretary of the Board one week previous to examination, as no application for this meeting will be received after that date. The next meeting of the Board will be held October 31, 1900.

D. F. KEEFE, D.D.S. Secretary.

Providence, R. I.

Resolutions Regarding Dr. J. N. Crouse and the Dental Protective Association.

Adopted by the Illinois State Dental Society, at Springfield, May 9, 1900.

"In view of the recent activity on the part of the International Tooth Crown Company, their agents and allies, both in and out of the profession, and the appearance at the same time in some of the dental journals of articles reflecting on the management and tending to destroy confidence in the Dental Association, the Illinois State Dental Society in the Thirty-sixth Annual Meeting assembled, deems it most opportune at this time to again put on record its confidence in and loyalty to the association, and its management, which has made of it such a wall of protection to the entire profession.

"This Society desires also in the most emphatic manner to express its confidence in the personal integrity of Dr. J. N. Crouse, and hereby records its deep appreciation of the unselfish personal sacrifices that he has so freely made, for so many years, for the good of the cause.

"This Society considers the cause of the Dental Protective Association, the cause of the profession, and it condemns as inimical to the interests of the entire profession the circulation of slanders by traveling men or the publication of articles that are calculated to weaken the hands of those who are fighting our battles and to put weapons into the hands of our enemies. And this Society hereby calls upon all those who have the good of the profession at heart to give the Dental Protective Association a most cordial and unqualified support, and counsels them to show in no uncertain way their utter disapproval of all those who give aid and comfort to the common enemy.

(Signed)

C. B. ROBLAND,
E. K. BLAIR,
J. G. REID,
Committee.